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Affirmative

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Inherency

Proposed legislation won't solve - empirically funding in similar bills isn't appropriated to the ports

Szakonyi 5/30/14 (Mark, Senior Editor, "WRRDA's Promised Funding for US Ports Isn't Guaranteed", The Journal of Commerce, JOC.com, http://www.joc.com/regulation-policy/transportation-policy/us-transportation-policy/wrrda%E2%80%99s-promised-funding-us-ports-isn%E2%80%99t-guaranteed_20140530.html)

WASHINGTON — **Congressional appropriators**, or those with the purse strings, **aren't bound to follow the guidance set forth by the Water Resources Reform Development Act**, which President Barack Obama is expected to soon sign into law. Just because Congress promises to send hundreds of millions of dollars more annually to U.S. ports and more fairly distribute the funding doesn't mean it's going to happen. The bill sets targets for reforming the Harbor Maintenance Trust Fund so that all the money will go back to ports by fiscal 2025, but **there is no mandate or trigger to force Congress to back up its goals with dollars**, said Paul Bea, principal of maritime consultant PHB Public Affairs. Currently, **only half of the \$1.8 billion collected in harbor maintenance taxes — a 0.125 percent levy of the value of imported cargo — goes back to ports, with the rest being used to plug federal budget holes.** **"The bill doesn't solve the problem"** (of the misuse of the HMTF), but it does point to the way it could be," Bea said. There is a shadow hanging over the soon-to-be-enacted water resources development bill amid the port industry's jubilation over potential HMTF reform. **There was a similar level of adulation when the HMTF was created through passage of the first WRDA bill in 1986**, said J. Stanley "Stan" Payne, a principal at Summit Strategic Partners, a management and transportation consulting firm. **The port industry thought Congress was finally getting serious** about funding ports — **only to see appropriators siphon money away** from the trust fund. **There isn't any guarantee** that **appropriators will follow the mechanism** created through the bill aimed at giving donor ports a fairer share of funding either. The bill calls for donor ports to get at least 10 percent of any surplus of the first \$800 million allocated annually. Donor ports are defined as those that have collected at least \$15 million in HMT dollars annually, received less than 25 percent of their collected HMT back in the last five fiscal years and handled more than 2 million TEUs in fiscal 2012.

Trade Competitiveness Adv

US ports shallow now - causes shipping delays and hurts trade competitiveness - dredging is key

Tirschwell 14

(Peter, Staffwriter for Journal of Commerce, "Underfunding Keeps US Ports Shallow", Feb 05, 2014, http://www.joc.com/port-news/us-ports/port-brunswick/underfunding-keeps-us-ports-shallow_20140205.html)

Although its channel depth is supposed to be 38 feet at the harbor entrance, **Brunswick**, Ga., currently **has only 31 feet at low tide due to shoaling and inadequate funding for dredging**, said Colonel Thomas J. Tickner, commander and district engineer for the Savannah District of the U.S. Army Corps of Engineers. Authorized and actual depths of U.S. ports Authorized and actual depths of U.S. harbors and channels Full-size chart Brunswick is not alone. In recent years as Congress has appropriated only about half of the fees on importers generated for the Harbor Maintenance Trust Fund, several **ports have become several feet shallower than their authorized depth**, that is, the depth they are supposed to be maintained at. Among them is Mobile, Ala., authorized at 55 feet but currently only at 45 feet mean low water, New Orleans and Baton Rouge, also authorized at 55 feet but only currently at 45 feet, and the channel to the port of Stockton, Calif., authorized at 45 feet but only at 35 feet currently. Mean low water is the low tide average. Thus if mean low water is 40 feet any ships that draw less than that can enter or leave the port at any time. **If a ship's draught is deeper than mean low water then it must wait for a higher tide.** The constraints on shipping at Brunswick, the 3rd busiest roll-on, roll-off port in the U.S., are so severe that the GPA decided to spend its own money, allocating \$3 million to get the depth down to 35 feet, a project that will be completed this spring. The effect of the shoaling in the channel is such that **ships** carrying cars made by Hyundai, Volkswagen, Kia, BMW, Mercedes, Audi, Porsche, Nissan and Toyota **must wait** sometimes **for hours** **for a favorable tide to enter or leave the port**. Brunswick also has a bulk handling facility that moves 1 million tons of agribulk annually, and a general cargo forest products export facility, whose ships must sometimes load less cargo because of the tide. **It's been woefully underfunded every year to maintain the depth,** GPA Executive Director Curtis Foltz told the JOC. **Some of the large ro-ro ships not only carrying autos but high and heavy cargo like agriculture equipment are being delayed awaiting tidal movements,** he said. "It's the classic infrastructure challenge," he said, referring to Brunswick and similar scenarios around the country. **It lessens our competitiveness and increases the cost of shipping goods as a nation** Tickner said, "we are striving to keep (Brunswick) at the authorized depth," but the funding hasn't been there. There could be relief for Brunswick and other ports if the Water Resources Development Act is approved by Congress. Current language would incrementally increase the amount of the Harbor Maintenance Trust Fund that gets spent rather than withheld as an offset to the deficit. Under the wording, allocations from the fund would grow to 65 percent of FY 13 HMT receipts up to 80 percent by FY 2020, according to the American Association of Port Authorities. "Both the House and Senate (versions of WRDA) have language that would improve the funding for O&M (Army Corps' operations and maintenance) activities like Brunswick," Foltz said.

Preventative dredging is key - loss of business is on the brink now and its irreversible - once companies leave, they're gone forever

Weakley 8

(James President of Lake Carriers' Association, an organization of U.S.-Flag vessel operators on the Great Lakes, and an officer of the Great Lakes Maritime Task Force, a coalition of ship operators, labor, shipyards, ports and others on the Great Lakes. "Realize America's Maritime Promise", 4-30, http://www.ramphmtf.org/speeches_043008.html, 7-12-12)

America's deep-draft navigation system is **at a crossroads**, with a future that can be bright or **bleak**. Our waterways' ability to support the Nation's continuing growth in trade and in the defense of our Nation, hinges on much-needed Federal attention to unresolved funding needs that are derailing critical channel maintenance and deep-draft construction projects of the water highways to our ports. **Because most ports do not have naturally deep harbors, they must be regularly dredged to allow ships to move safely** through Federal navigation channels. Also, **as modern vessels increase in size, navigation channel depths must increase accordingly, if we are to continue to be a player on the international marketplace**. A recent U.S. Army Corps of Engineers Study reports that almost **30 percent of** the 95, 550 vessel calls at **U.S. ports are constrained due to inadequate channel depths**. Ladies and gentlemen, these are the things that cause port directors nightmares. Without a channel dredged to its authorized depth, nothing else comes into play. Attracting new customers, dealing with labor issues, environmental concerns, and the public - all go away - because without a properly-dredged channel, business goes away. Public ports are at a critical state in keeping their channels open for business. **We are losing existing business and potential new business to ports outside of the United States and once lost, it is rarely regained**.

Delays crush US competitiveness - transportation costs are the key internal link to trade volume - makes US ports less desirable for import and export and kills investment

USAID 4

"THE BROAD ECONOMIC IMPACT OF PORT INEFFICIENCY: A COMPARATIVE STUDY OF TWO PORTS"

http://pdf.usaid.gov/pdf_docs/PNADC612.pdf

Recent **research**, for example, **has shown how transport inefficiencies affect development, trade success, and foreign investment**. Hummels (1999) provides evidence of the impact of high transportation costs (determined by distance to source and export markets), on development. Henderson, Shalizi, and Venables (2001) explore how **transport costs influence trade and welfare**. Hoffmann and Kumar (2002) show a symbiotic relationship between trade and maritime transport and their interplay with globalization. Other **studies show the precise impact of high transport costs**. Limao and Venables (2000), **for example**, show that **increasing transport costs by 10 percent can reduce trade volumes by 20 percent**; Radelet and Sachs (1998) show that a **doubling of shipping costs can slow annual economic growth by about a half percentage point**.

Ocean-vessel port infrastructure is particularly key to US trade - alternatives aren't cost effective - failure crushes US trade competitiveness

TFB 12 "Port Infrastructure Policy Development" Tennessee Farm Bureau, group advocating on behalf of farmers and farming communities. <http://www.tnfarmbureau.org/sites/default/files/Port%20Infrastructure.pdf>

As the American economy has grown, the United States has become more and more dependent on its waterborne trade. Today, international trade through U.S. ports, directly and indirectly, **supports 25-30 percent of U.S. GDP and 13 million jobs. For U.S. agriculture the impact is even larger, 30-35 percent of agricultural income is derived from exports**, the vast majority of which is **transported via water**. Overall, **deep draft ports accommodate ocean-going vessels which carry more than 99 percent of U.S. overseas trade by weight and 64 percent by value**. Our country's inland navigation system plays a critical role in our nation's economy, moving hundreds of millions of tons of domestic commerce. Incredibly important to the agriculture industry, approximately 60 percent of the nation's grain exports move by barge on the inland waterway, primarily on the Mississippi River. **Across all trade, the transportation cost savings alone are estimated to exceed \$7 billion annually compared to the cost of shipping this type**

of tonnage by alternative means. Without adequately maintained shipping channels and port infrastructure, U.S. participation and benefits will not be maximized. Despite this, the IWTF is woefully low of funding and the HMT may only be used to fund maintenance, not new construction. To increase a channel's authorized depth or width requires an act of Congress, which is referred to as construction or "new work" by USACE and is funded from the General Treasury, not the HMT. Multiple other proposals for collecting additional revenues have surfaced. Some have proposed raising the current waterways fuel tax, taxing recreational users, initiating additional user fees, privatization and combinations thereof.

Scenario 1 is Growth Differential

Low trade costs are key to US firm productivity - exports are key to boost US growth and generate US innovation

Council of Economic Advisors 13

(*Economic Policy Report 2013*, "CHAPTER 7 INTERNATIONAL TRADE AND COMPETITIVENESS", <http://www.whitehouse.gov/administration/eop/cea/economic-report-of-the-President/2013>)

Greater openness of world markets enhances the productivity of U.S. industries and firms. Research finds that the U.S. industries experiencing the largest declines in tariffs have exhibited some of the strongest productivity gains. Bernard, Jensen, and Schott (2006) find that **falling trade costs led individual U.S. manufacturing plants that already export to increase their shipments abroad, high-productivity nonexporters to become more likely to export, and low-productivity plants to become more likely to exit the domestic market.** Together, **these effects result in a reallocation of economic activity toward high-productivity firms,** thereby **raising overall industry productivity.** Studies of numerous other countries show similar gains in industry productivity through trade-induced reallocation across firms. Evidence also shows that **decreases in industry-level trade costs lead to within-firm productivity growth.** Lileeva and Trefler (2010), for example, found that the Canada-U.S. Free Trade Agreement caused increases in labor productivity, product innovation, and adoption rates for advanced manufacturing technologies among Canadian exporters. Pierce (2011) showed that U.S. tariffs lower the productivity of U.S. firms, in part by slowing the rate at which older, less-productive production lines are phased out in favor of new product lines. Several other studies have found that trade liberalization increases research and development (R&D) and technology upgrading. Firm productivity and exports also can be enhanced when trade liberalization lowers the cost, and expands the variety, of imported intermediate inputs.¹ Although much of the evidence for this channel comes from studies of middle- and low-income countries, Amiti and Wei (2009) found that imports of service inputs, such as telecommunications, insurance, finance, computing, and other business services, have a significant positive effect on manufacturing productivity in the United States. In a similar vein, Francois and Woerz (2008) showed that, across advanced economies, **increased import penetration in producer services results in better export performance, particularly by skill- and technology-intensive industries.**

Attempts to maintain hegemony are inevitable - US trade competitiveness and growth differential are key to maintain alliances and prevent rival challengers

Tellis 9

Senior Associate @ Carnegie Endowment for International Peace, specializing in international security, defense and Asian strategic issues. [Ashley J. Tellis (Research Director of the Strategic Asia program @ National Bureau of Asian Research, "Preserving Hegemony: The Strategic Tasks Facing the United States", *Global Asia*, Vol.4, No. 1, Spring 2009)]

Precisely because the desire for dominance is likely to remain a permanent feature of US geopolitical ambitions — even though how it is exercised will certainly change in comparison to the Bush years — the central task facing the next administration will still pertain fundamentally to the issue of US power. This concern manifests itself through the triune challenges of: redefining the United States' role in the world, renewing the foundations of US strength, and recovering the legitimacy of US actions. In other words, **the next**

administration faces the central task of clarifying the character of **US hegemony**, reinvigorating the material foundations of its power, and securing international support for its policies. **The challenge of comprehensively strengthening US power at this juncture**, when the United States is still in the early phase of its unipolar role in global politics, **arises** importantly **from the fact that** the **hegemony** it has enjoyed since 1991 **represents a “prize” deriving from victory in intense geopolitical competition with another great power**. The historical record suggests that **international politics can be unkind to such victors over the long term**. A careful scrutiny of the hegemonic cycles since 1494 confirms quite clearly that **power transitions** at the core of the global system often **occur because successes in systemic struggles** — of which the Cold War is but one example — can **irreparably weaken** otherwise victorious **hegemonies**. The annals of the past actually corroborate the surprising proposition that no rising challenger, however capable, has ever succeeded, at least thus far, in supplanting any prevailing hegemony through cold or hot war. Over the centuries, Spain, France, Germany, Japan, and the Soviet Union all tried in different ways but failed. This reassuring fact notwithstanding, hegemonic transitions still occurred regularly in international politics, a reality that points to two critical insights about succession struggles in the international system — which is a subject that ought to be of great significance to the United States and its allies as well as to its adversaries. First, **struggles for hegemony** in global politics **are rarely limited to dyadic encounters between states**. **These struggles involve not only the existing hegemon and the rising challenger** as the preeminent antagonists — **roles that** many expect **will be played** respectively **by the United States and China** over the long term — **but also the entire cast of international characters**, including non-state actors involved in economic processes, and the nature of their involvement in the competition become relevant to the succession process. Thus, the nature of the alliances orchestrated and managed by the United States (and possibly China as well) in the future, **the relationship between state entities and the global economic system**, and the relative burdens borne by every actor involved in this contest **become relevant** to the outcome. **Second**, and equally importantly, **who wins in the ensuing struggle** — whether that struggle is short or long, peaceful or violent — **is as important as by how much**. This is particularly relevant because the past record unerringly confirms that the strongest surviving state in the winning coalition usually turns out to be the new primate after the conclusion of every systemic struggle. Both Great Britain and the United States secured their respective ascendancies in this way. Great Britain rose through the wreckage of the wars with Louis XIV and with Napoleon. The United States did so through the carnage of the hot wars with Hitler and Hirohito, finally achieving true hegemony through the detritus of the Cold War with Stalin and his successors. **If the United States is to sustain** this hard-earned **hegemony over the long term**, while countering as necessary a future Chinese challenge should it emerge, **Washington will need to amass the largest differential in power relative not only to its rivals but also to its friends and allies**. Particularly **in an era of globalization, this objective cannot be achieved without a conscious determination to follow sensible policies that** **sustain economic growth**, minimize unproductive expenditures, **strengthen the national innovation system**, maintain military capabilities second to none, and **enjoin political behaviors that evoke the approbation of allies** and neutral states alike. **The successful pursuit of such policies will enable the United States to cope more effectively with near-term challenges as well, including the war on terrorism and managing threatening regional powers**, and will ineluctably require — to return full circle — engaging the central tasks identified earlier as facing the new US administration. These tasks involve the need to satisfactorily define the character of desirable US hegemony, the need for sound policies that will renew the foundations of US strength, and the need to recover the legitimacy of US purposes and actions. What is clearly implied is that the principal burdens facing the next US president transcend Asia writ large. The success of these pursuits, however, will inevitably impact Asia in desirable ways, even as the resolution of several specifically Asian problems would invariably contribute to the conclusive attainment of these larger encompassing goals. Policy Implications US efforts in three areas will reaffirm its role as **global leader**: supporting a durable framework for international trade, maintaining unqualified military supremacy, and ensuring the delivery of certain public goods, such as peace and security, freedom of navigation, and a clean environment. **The renewal of traditional US economic might requires policies that favor growth and innovation**.

increased capital and labor pools, **and sustained pursuit of total factor productivity**. Legitimacy is an important facet of US power that has eroded over the last eight years. The US can secure legitimacy for future political acts by shaping world opinion through a combination of decisiveness, cultivation of key allied support, and attentiveness to the views of others.

US primacy key to solve extinction - even if hegemony is bad, managing decline is key to prevent great power wars

Barnett 11

(Thomas P.M., Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College American military geostrategist and Chief Analyst at Wikistrat., worked as the Assistant for Strategic Futures in the Office of Force Transformation in the Department of Defense, "The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads," March 7 <http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads>)

Events in Libya are a further reminder for Americans that we stand at a crossroads in our continuing evolution as the world's sole full-service superpower. Unfortunately, we are increasingly seeking change without cost, and shirking from risk because we are tired of the responsibility. We don't know who we are anymore, and our president is a big part of that problem. Instead of leading us, he explains to us. Barack Obama would have us believe that he is practicing strategic patience. But many experts and ordinary citizens alike have concluded that he is actually beset by strategic incoherence -- in effect, a man overmatched by the job. It is worth first examining the larger picture: **We live in a time of arguably the greatest structural change in the global order yet endured, with this historical moment's most amazing feature being its relative and absolute lack of mass violence.** That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: **As the guardian of globalization, the U.S. military has been the greatest force for peace the world has ever known.** Had America been removed from the global dynamics that governed the 20th century, the mass murder never would have ended. Indeed, it's entirely conceivable there would now be **no identifiable human civilization left, once nuclear weapons entered the killing equation.** But **the world did not keep sliding down that path of perpetual war. Instead, America stepped up and changed everything by ushering in our now-perpetual great-power peace.** We introduced the international liberal trade order known as **globalization** and played loyal Leviathan over its spread. What resulted was the collapse of empires, **an explosion of democracy**, the **persistent spread of human rights**, the liberation of women, **the doubling of life expectancy**, a roughly **10-fold increase in adjusted global GDP** and a profound and persistent reduction in battle deaths from **state-based conflicts.** That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as the Facebook revolutions erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more

comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these **calculations suggest a 90 percent absolute drop and a 99 percent relative drop in deaths due to war. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both encourage and accommodate. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms,** deeply embedded in the geometry to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

Scenario 2 is Agricultural Competitiveness

Agricultural competitiveness is on the brink - erosion of crucial trade infrastructure threatens US loss of agricultural leadership

KYFB 12

("Failure to Act- Impacts on Agriculture" Kentucky Farm Bureau, represents the interests of agricultural producers and rural communities. <https://www.kyfb.com/media/files/fed/legislative-affairs/resources/WRDA%20Infrastructure-white-paper.pdf>)

Waterborne transportation facilities are critical to the health of the agricultural economy, enabling the importing and exporting of goods. Today and increasingly into the future, growing economies in developing countries demand U.S. agricultural exports. U.S. agriculture is up to the challenge, **but chronic underinvestment in our waterborne infrastructure causes us to question whether our** aging **system will cause us to become uncompetitive.** The challenge to the marine transportation system lies in the projected growth of the nation's international trade, and the ability of the marine, highway, and rail systems to accommodate the increased volumes of freight shipments so vital to our nation's continued economic growth. The U.S. Department of Transportation projects that trade volume for marine ports will double by 2021, and double again shortly after 2030. Increasing agricultural trade is expected to be a large part of that increase. **As trade volumes increase, the capacity of America's waterborne infrastructure system must increase** in order to maintain and expand the nation's economy.

Failure of ocean ports ensures massive farm collapse - exports are critical to the success of US farming and agriculture

KYFB 12

("Failure to Act- Impacts on Agriculture" Kentucky Farm Bureau, represents the interests of agricultural producers and rural communities. <https://www.kyfb.com/media/files/fed/legislative-affairs/resources/WRDA%20Infrastructure-white-paper.pdf>)

U.S. ports and the maritime industry offer agricultural shippers and exporters access to a vast global marketplace. A major catalyst behind stronger farm income over time has been the strength of U.S. agricultural exports. As a share of total gross farm receipts, U.S. agricultural exports accounted for more than 30 percent of earnings in 2012. Forty years ago, that share was less than 15 percent. Increased global interdependence among trade nations has been one of the keys to rising farm incomes, but it has also placed additional demands on our ports and the end- to-end delivery system of imports and exports. U.S. ocean ports provide the gateway for an estimated 70 percent of U.S. agricultural exports and 60 percent of agricultural imports. Through those ports U.S. farmers and

ranchers export a wide variety of products. Through bulk shipments, America's farmers send international customers familiar products like corn and soybeans, or grain products such as flour and oil, soybean products such as oil, animal feed, rice, and poultry. But they also send products that do not come to mind as quickly, such as: tallow, canned food, fruits and vegetables, as well as fish and molasses among others. In terms of volume, more than 80 percent of waterborne agricultural exports in 2007 were moved in bulk. But there has been a rising shift in the form of those agricultural exports. **Through containerized shipments, America's farmers and ranchers send international customers an even wider variety of products ranging from high-value specialty items** such as fruits, vegetables, nuts, meats, dairy products, and beverages **to items formerly exclusively shipped in bulk**, like soybeans and grains. **The improvement and use of containers has allowed U.S. agriculture to export products in new and unique ways.** Containers allow small and medium sized enterprises (SMEs) to participate in trade in ways that were previously only available to large grain trading companies. Containers allow SMEs to supply relatively small amounts of product to buyers and service small niche markets. In fact, some agricultural products, such as food preparations, food grade soybeans, cotton, and frozen poultry, use containers extensively to reach export markets. In terms of volume, nearly 20 percent of waterborne agricultural exports in 2007 were moved in containers.

The impact is extinction - failure of US agricultural competitiveness ensures shift to alternative sources that cause environmental destruction and resource wars

Lugar 4

U.S. Senator – Indiana, (Richard, “Plant Power” Our Planet v. 14 n. 3,
<http://www.unep.org/OurPlanet/imgversn/143/lugar.html>

In a world confronted by global terrorism, turmoil in the Middle East, burgeoning nuclear threats and other crises, **it is easy to lose sight of the long-range challenges. But we do so at our peril. One of the most daunting of them is meeting the world's need for food and energy in this century.** **At stake is not only preventing starvation and saving the environment, but also world peace and security.** **History tells us that states may go to war over access to resources, and that poverty and famine have often bred fanaticism and terrorism. Working to feed the world will minimize factors that contribute to global instability and the proliferation of weapons of mass destruction.** With the world population expected to grow from 6 billion people today to 9 billion by mid-century, the demand for affordable food will increase well beyond current international production levels. People in rapidly developing nations will have the means greatly to improve their standard of living and caloric intake. Inevitably, that means eating more meat. This will raise demand for feed grain at the same time that the growing world population will need vastly more basic food to eat. Complicating a solution to this problem is a dynamic that must be better understood in the West: developing countries often use limited arable land to expand cities to house their growing populations. **As good land disappears, people destroy timber resources and even rainforests as they try to create more arable land to feed themselves.** **The long-term environmental consequences could be disastrous for the entire globe.** Productivity revolution To meet the expected demand for food over the next 50 years, we in the United States will have to grow roughly three times more food on the land we have. That's a tall order. My farm in Marion County, Indiana, for example, yields on average 8.3 to 8.6 tonnes of corn per hectare – typical for a farm in central Indiana. To triple our production by 2050, we will have to produce an annual average of 25 tonnes per hectare. Can we possibly boost output that much? Well, it's been done before. Advances in the use of fertilizer and water, improved machinery and better tilling techniques combined to generate a threefold increase in yields since 1935 – on our farm back then, my dad produced 2.8 to 3 tonnes per hectare. Much US agriculture has seen similar increases. But of course there is no guarantee that we can achieve those results again. Given the urgency of expanding food production to meet world demand, we must invest much more in scientific research and target that money toward projects that promise to have significant national and global impact. For the United States, that will mean a major shift in the way we conduct and fund agricultural science. Fundamental research will generate the

innovations that will be necessary to feed the world. **The United States can take a leading position in a productivity revolution.** And **our success at increasing food production may play a decisive humanitarian role in the survival of billions of people and the health of our planet.**

Coastal Erosion Adv

Climate change is inevitable - energy consumption and emissions are growing, not declining

Falk 14

(William, editor-in-chief of The Week, and has held that role since the magazine's first issue in 2001, "Why climate change is inevitable", January 24, 2014, <http://theweek.com/article/index/255504/why-climate-change-is-inevitable>) Have you cut your energy consumption — and greenhouse gas emissions — by 40 percent in recent years? Didn't think so. Neither have I, or many of the other seven billion people on the planet. In a draft of their final report that was leaked last week to The New York Times, **scientists on the Intergovernmental Panel on Climate Change have concluded** that **the world is not heeding their repeated warnings, and** that mankind's **heavy use of fossil fuels** — and emissions of carbon dioxide — **are increasing, not declining** by 25 to 40 percent, as **they recommended**. The boom in energy consumption in India, China, and the developing world has overwhelmed some emissions reductions in Europe and the U.S. In coming years, the IPCC glumly predicted, "**the fundamental drivers of emissions growth are expected to persist**." We'll probably blow past the CO2 targets that the IPCC says will bring disastrous consequences, and see total warming exceed 3.6 degrees Fahrenheit — more than twice the warming seen so far. **The climate will get way weirder**. No one should be surprised. Human beings, psychologists have found, are really terrible at assessing and responding to risks. **We overreact to threats when we have already experienced painful consequences of something similar** (such as terrorism), and there's a scary perpetrator to blame (such as Osama bin Laden). But people aren't wired to make drastic, painful changes now in response to hedged predictions by scientists about a hotter, more extreme climate in the year 2030 or 2050. Drive a lot less? Cut back on the use of electrical devices? Pay a lot more for energy? Resistance remains strong. **If plan A is prevent climate change through massive, collective sacrifice, let's face it: It's time to start working on plan B.**

Adaptation is key - port dredging is necessary to respond to massive changes in sea level

CEDA 12

(Central Dredging Association, "Climate Change Adaptation As It Affects The Dredging Community", CEDA Position Paper May 2012, http://www.dredging.org/documents/ceda/html_page/2012-05-ceda_positionpaper-climatechangeadaptation.pdf)

Climate change is now a fact. It is also now widely accepted that human activities are playing a role in the increase of greenhouse gas emissions that have accelerated global warming during the last century, although the significance of the human contribution is still a matter of debate. The **related effects include:** • **Sea level rise** • An **increase in seawater surface temperature** • **Changes in** (seasonal) **precipitation** and hence river flow. Climate change research moves rapidly and there is still a great deal of uncertainty: some **new estimates project faster rates of sea level rise** than those reported by IPCC in 2007 (Rahmstorf, 2010) whilst other (satellite) data suggest that rates of sea level rise may be slowing (CU Sea Level Research Group, 2012). In addition to trends for an ongoing rise in global temperature and associated sea level rise, it is anticipated **there will be an increase in the frequency of such extreme events** as storms, surges, floods and droughts. **Climate change effects are** also **expected to increase in the coming decades**, in part **because of the relative lack of success** to date **in implementing mitigation measures** (ie measures designed to reduce greenhouse gas emissions), and in part due to the thermal inertia of the oceans, the 'climate engine'. **Low-lying coastal areas worldwide face a large-scale increase in population density, urbanisation, industrialisation and agriculture with associated implications for land subsidence. These increasing pressures make coastal zones and deltas especially vulnerable to climate change impacts** – not only flooding and erosion,

but also implications for ecosystems (Nicholls et al, 2010) such as through intrusion of saline waters. **Adaptation strategies are** therefore **absolutely necessary** **to reduce the consequences of climate change by improving resilience and reducing vulnerability.** And **dredging will** often **be an important element in the adaptation ‘toolkit’.**

Specifically climate change makes coastal erosion inevitable - oceanic port dredging is key to re-sedimentation

CEDA 12

(Central Dredging Association, “Climate Change Adaptation As It Affects The Dredging Community”, CEDA Position Paper May 2012, http://www.dredging.org/documents/ceda/html_page/2012-05-ceda_positionpaper-climatechangeadaptation.pdf)

Open Coasts **Coastal areas are influenced by natural forces** such as tides, surges, waves, winds and currents **that may lead to coastal erosion, sediment accumulation and coastal flooding.** **Climate change is already manifesting itself in the form of sea level rise and altered wind patterns.** **The consequences of climate changes are likely to include increased coastal erosion** and an increasing risk of breaching of dikes and dunes and of flooding from the sea. **Changes in sediment transport may lead to increased sedimentation in harbours, inlets and channels.** There are many associated challenges: the quantity of sand required for future strengthening or raising of dikes and dunes, for example, or for nourishing foreshores in low lying areas and along eroding stretches of coast. **These are likely to increase in many situations and if this is the case, such materials may need to be sourced further offshore** – in deeper waters and therefore in a harsher environment. **The uncertainties associated with climate change projections for extreme events can in turn result in significant uncertainties for basic design criteria for marine projects** – such as extreme water levels and extreme waves – within the lifetime of a project. This need to take into account a wider range of projected future conditions may provide some additional design challenges. **Coastal zone management has evolved considerably over recent decades, facilitated largely by an ever-improving understanding of the littoral sediment transport processes that govern coastal change.** **Positive use of such natural processes by dredging contractors can help towards adaptive measures for climate change.** **Managing sediment balances through cyclic nourishment is a potentially relevant adaptation measure in which the dredging industry could play an important role.** Case Studies – Coastal Defence An example of an adaptive management solution is the experimental mega-nourishment in the Netherlands called The Sand Engine (Figure 1), which combines safety requirements with space for nature development and recreation, and uses natural processes for distribution of sand (Aarninkhof et al., 2010). This type of solution may become more commonplace under the scenario of climate change – building on innovative modern schemes and management plans implemented along our coasts and estuaries. Such schemes already have to be multi-functional, while at the same time satisfying the requirements of society, conserving the environment or even rehabilitating past environmental damage. Other examples include the beach parks Køge Bay (Figure 2) and Amager in Denmark which combine flood protection with ‘engineered nature’ in the form of lagoons, and high quality artificial beaches (Brøker and Mangor 2011): such solutions, however, require specific conditions which may not be available in all locations. Another example of an innovative approach combining profile nourishments with submerged feeder berm nourishments is illustrated in Figure 3. Restoration was necessary after a storm that caused erosion of dunes, tidal and subtidal beaches along the coastal stretch between Vlissegem, De Haan, Bredene (Belgium). **By integrating the natural morpho-dynamics into the design a significant improvement in stability of the reclamation could be achieved.** **A negative sediment balance in the coastal area is typically associated with erosion and an increased threat from flooding** – **a situation which is likely to be exacerbated as a result of climate change.** EUROSION, a European initiative for sustainable coastal management, recommends that a source of future sediment be identified to help improve the long term resilience of

affected areas. These ‘Strategic Sediment Reservoirs’ could be derived from offshore, coastal or hinterland areas, and in the case of the former, **dredging may have an important role to play**.

Coastal erosion guarantees energy insecurity - destroys pipelines and extraction infrastructure - makes disruption of oil and natural gas service delivery inevitable **Dismukes et al 9**

(David E, Professor & Associate Director of LSU Center for Energy Studies, Additional Authors: Michelle L. Barnett, Research Associate Kristi A. R. Darby, Geologist, “Chapter 5 – Determining the Economic Value of Coastal Preservation and Restoration on Critical Energy Infrastructure”, pg. 84, in *The Economic and Market Value of Coasts and Estuaries: What’s At Stake?*, Edited by Linwood H. Pendleton, http://www.habitat.noaa.gov/pdf/economic_and_market_valueofcoasts_and_estuaries.pdf)

While considerable attention has been paid to the negative impacts of energy development on coastal areas, little analyses or thought has been given to the potential synergies between restoration activities and this important infrastructure. Industry, for instance, has invested billions in **infrastructure assets along the GOM**. **Coastal erosion threatens** these assets and potentially threatens **the delivery of important energy resources to consuming areas throughout the country**. Thus, **coastal erosion**, in the extreme case, **can have two negative impacts on energy industries operating in coastal areas**. **The first and most obvious is the economic damage (or loss) of the exposed infrastructure** in the area. **This damage** or loss **could have considerable economic value**. Consider, for instance, that the replacement value for a major pipeline segment today ranges from \$500,000 to \$1 million per mile. Thus, **the destruction of several miles of pipeline can be a considerable loss**. **The second impact would be the lost income that results from delivery interruptions** from either a temporary outage or complete loss. **Pipeline companies**, for instance, **make money by moving crude oil or natural gas** from one location to another. **If they are not moving volumes, they are not making money**. **The same is true for producers**: if their ability to move production from their wells and platforms is interrupted, they are not making any profit on the significant assets in which they have invested for the duration of the outage. Thus, **industry is tied to** the **coastal restoration** challenge. **There could be considerable economic benefits to energy supply security** and deliverability from a natural form of hardening (or protection) for energy infrastructure assets in the region. Shell Oil Company’s participation through the America’s Wetlands Campaign is a prime example of how energy companies can have both a significant impact on coastal restoration and support energy security and deliverability.

Coastal production is the lynchpin of all of US oil and natural gas production -- the Gulf of Mexico contains almost all of the countries refinery capacity -- supply shocks to the coastal region ensure massive US energy insecurity

Hibbard 6

(Paul J, Analysis Group: Economic, Financial, and Strategy Consultants, “US Energy Infrastructure Vulnerability Lessons From the Gulf Coast Hurricanes”, March 2006, http://bipartisanpolicy.org/sites/default/files/Infrastructure%20Vulnerability%20Hibbard_44873b7081ec6.pdf)

Why did the hurricanes produce such an impact, and what does it tell us about our energy infrastructure needs?

The Gulf Coast is the undisputed heart of the U.S. energy industry. **In the Gulf, we produce or import three-fifths of the country’s supply of crude oil and a third of U.S. natural gas supplies; we generate half of the countries refined product**, supplying nearly all of the requirements for the Gulf region, the East Coast, and most of the Midwest. The vast majority of the petroleum and natural gas products consumed in the eastern half of the country find their origin in markets, storage, processing, and pipeline capacity concentrated in Gulf states. **The sheer magnitude of fossil fuel operations in the Gulf make them the centerpiece of U.S. natural gas and refined petroleum product supply and pricing**. The combined effect of the two

hurricanes took out virtually all of this capacity for a short period of time, and an unprecedented level of capacity for a more extended period of time. It did so, as mentioned, against a backdrop of historically thin supply and high prices, and the results were predictably severe. What are our options to address the weaknesses that the hurricanes revealed: to try to prevent such a disproportionate impact in the future, whether it is the result of hurricanes or other natural forces, or the result of an intentional terrorist act? If there is a silver lining, it is in the potential that the aftermath of **the hurricanes** on energy markets will serve as a wakeup call – that they will remind us of some basic facts related to energy security and infrastructure vulnerability. In particular, they have demonstrated the magnitude of the influence of energy costs and availability on personal wealth and national and local economies. And they have **revealed both how sensitive energy supply and pricing is to relatively small disruptions**, and how concentrations and **weaknesses in our energy infrastructure leave us vulnerable to** such **supply disruptions**. This paper reviews the vulnerabilities in our nation's energy infrastructure, as revealed in part by the havoc wreaked by the Gulf hurricanes. The focus is primarily on petroleum and natural gas. First, it describes the sources of supply for each fuel, along with the capacity to process raw fuels and distribute the resulting products to U.S. markets. Next it describes industry conditions following the hurricanes, and the actual and expected supply and price impacts of these disruptions. Finally, it examines in particular the supply and price impacts on energy markets in the Northeast, which is excessively dependent on Gulf supplies of oil for heating, and on natural gas for heating, commercial activity, and electricity generation. **This review underscores the consequences of existing vulnerabilities in our energy infrastructure**, and in our national and regional pattern of dependencies on tightening global and national markets for petroleum and natural gas. Concern over energy supply and price vulnerability is not new – indeed, understanding the role of energy supply and cost in national security and economic health has been the primary focus of numerous government and privately-funded studies spanning decades. **The impacts of the Gulf hurricanes have reinforced** certain fundamental concerns prevalent in these studies – namely our dependence on fossil fuels and **the concentration of our energy infrastructure**. But they also have revealed important near-term vulnerabilities associated with recent growth in demand and current infrastructure conditions.

Perceptions of US energy supply adequacy are crucial to East-Asian stability - failure of the US to guarantee Japanese energy security ensures miscalculation and Sino-Japanese war

Phillips 13

(Andrew, Senior Lecturer in International Relations and Strategy

@ University of Queensland, "A dangerous synergy: energy securitization, great power rivalry and strategic stability in the Asian century", *The Pacific Review*, 2013 Vol. 26, No. 1, 17–38)

Energy security perceptions inevitably focus firstly on questions of supply adequacy relative to current and projected demand. In addressing supply adequacy questions, governments must first establish whether or not they can meet current and projected energy consumption demands through exclusive reliance on indigenous resources, before then determining if sufficient energy resources are likely to be available internationally to meet their needs if this proves not to be the case. Given the dominance of fossil fuels in the global energy mix, **fears of looming energy shortages have long preoccupied states** when addressing these questions of supply adequacy. Contrarily, more **optimistic commentators have downplayed such dangers**, maintaining that pricing signals will encourage technological innovation and greater investments in both traditional and renewable sources of energy to ensure sufficient supply of energy services in the long run (Yergin 2006: 74). Such **optimism is grounded in sanguine assumptions regarding** the efficiency, flexibility, resilience and **responsiveness of global energy markets to price signals**, adverting to the second set of considerations informing states' energy security perceptions. **Questions of supply adequacy are inevitably conditioned by governments' assessments concerning the efficiency, flexibility, resilience and responsiveness of the domestic and international institutions charged with allocating energy services**. Whether these institutions are governed mainly by the logic of bureaucratic command or by market signals varies crossnationally, depending on states' domestic energy resource endowments, level of development and choice of developmental model. This caveat aside, over the last three decades, the tendency in Asia has been for states to adopt developmental models predicated on their increased integration into global markets, including global energy markets (Solingen 2007: 765). Whether or not these markets will prove sufficiently efficient to assure the uninterrupted supply of energy services at an affordable price, sufficiently resilient in the face of short-term disruptions of supply in particular energy sectors, and sufficiently adaptive to ensure adequate investment in the full range of energy services necessary to ensure long-term global energy security are consequently all

considerations that now profoundly shape Asian states' energy security assessments. **Perceptions of supply adequacy are therefore intrinsically linked with** assessments concerning the allocative efficiency, flexibility, responsiveness and resilience of the institutions – increasingly, regional and global energy markets – responsible for the provision of these services. These assessments are, in turn, conditioned by **states' perceptions regarding the stability and benignity of the strategic environment within which these institutions operate**. The example of the global oil market is instructive on this point, with the United States' role as the Persian Gulf's chief security guarantor having historically played a vital role in assuring its Western European and East Asian security clients that the global oil market would continue to function in a manner consistent with the fulfilment of their energy needs (Klare 2004: 45–7). **Regional and global markets remain inescapably embedded within a broader geopolitical context, with a stable and benign strategic order being a vital prerequisite for these markets' continued ability to assure consumer states reliable access to energy tradeables**. That states' energy security perceptions are a composite of multiple considerations – encompassing perceptions regarding supply adequacy, institutional efficiency, and strategic stability and benignity – is significant in that it provides an insight into the ease with which **governments** can come to **regard energy as a national security challenge**, rather than an exclusively or even primarily economic issue. Despite the apparently intimate connection between energy policy and national security implied by the phrase, 'energy security', it is critical to note that the decision to securitize energy policy is a political choice and that states can, under limited circumstances, conceive of energy policy as being purely economic in character. States that are self-sufficient in energy resources, such as China prior to 1993, are particularly well positioned to conceptualize energy policy in this way, their energy self-sufficiency effectively shielding domestic energy consumers from external supply shocks. Conversely, however, states that rely on energy imports are likely to be acutely sensitive to the larger strategic context within which the international energy transactions on which they depend take place and, thus, more likely to conceive of energy as a security challenge. As John Ravenhill notes elsewhere in this volume, East Asian governments have long identified vulnerability to the disruption of essential imports as a vital national security concern (Ravenhill 2013: 89). **The tendency to securitize trade in key commodities has historically been the norm, rather than the exception, in the Asia-Pacific**, so it is unsurprising that **this trend is now extending to energy resources as China and India join Japan as major energy importers**. What I aim to establish below is that **it is not the fact that energy security is increasingly being securitized by itself that should concern analysts, but rather the adversarial manner in which it is** currently **being securitized and the way** in which **this process is interacting** negatively with existing alignment patterns **to reinforce existing regional rivalries**. The case of Japanese energy policy in the years following the Shanghai communiqué and the oil shocks will now be considered to corroborate the claim that energy securitization can interact positively with existing patterns of alignment to reinforce strategic stability. This will be followed by an analysis of the more adversarial dynamics of energy securitization that are now aggravating and amplifying security rivalries within a more contested Asia.

2. Energy security and Asian regional security, 1972–91 For the two decades following the Shanghai communiqué, Asia was vastly more stable than it had been during the immediate post-war period. This stability was attributable predominantly to favourable diplomatic alignments and a corresponding military balance, but also to regional patterns of energy consumption and production that further underwrote the post-1972 order. Turning firstly to alignment patterns, East Asia's strategic outlook was fundamentally transformed by the post-1972 rapprochement between the United States, the People's Republic of China and Japan. The suspension of the Sino-US contest for influence in East Asia after 1972 removed a critical contributor to regional instability, while the US alliance with Japan worked to stabilize relations between all three countries. American paramourty provided a 'double reassurance' to China and Japan, simultaneously muting their suspicions towards one another, while enhancing the three countries' anti-Soviet solidarity (White 2008: 97). The emerging trilateral entente stabilized East Asia at a time when perceptions of American decline might otherwise have undermined regional order. Additionally, the regional military balance continued to favour the US and its security partners. On land, Washington's alignment with Beijing enabled the latter to concentrate its energies on containing the Soviet Union. At sea, meanwhile, US maritime supremacy secured regional Sea Lines Of Communication (SLOCs) and thus provided East Asian states with the security necessary to pursue self-strengthening strategies predicated on their integration within a liberal global economic order (Olsen 2000: 187). This reversed a trend towards self-strengthening via policies of autarky and confrontation with the West, which had formerly guided key powers such as China and Indonesia, presaging an era of growing prosperity that further fortified regional stability (Phillips 2011: 97). Finally, regional patterns of energy consumption and production further underwrote a more stable order, as did the manner in which Japan specifically responded to the energy challenges of the post-oil shock era. Given its paucity of natural resources, energy concerns had always been central to Japan's national security outlook and these became even more so following the oil shocks. The oil shocks and the macro-economic dislocations they precipitated initially threatened to derail the Japanese economic miracle, potentially destabilizing an Asia that had already become reliant on Japanese prosperity as both a stimulant of regional development and a safeguard against revived Japanese militarism. As it eventuated, however, Japan's post-oil shock energy anxieties spurred policies that bound it more tightly into the regional order, thereby enhancing strategic stability. One of the most significant impacts of the 1973–74 oil crisis was the long-term filip it provided for a strengthening of Japan's alliance with America. **For the Japanese**, who had foresworn the right to wage war as a condition of their post-war rehabilitation, **the first oil shock dramatized their dual dependence** on both Middle Eastern oil to fuel their economic development and on **the US as the ultimate guarantor of continued access to that oil**. In responding to this dual dependence, Tokyo pursued a range of domestic initiatives to mitigate Japan's vulnerability to supply interruptions from the Middle East (Ikenberry 1986: 115). These initiatives notwithstanding, the reality that dependence on Middle Eastern oil could be reduced, but not eliminated, compelled Tokyo towards greater cooperation with the US, even if immediate energy security concerns saw

Tokyo adopt an ostensibly more pro-Palestinian stance than the US at the height of the 1973–74 oil embargo (Licklider 1988: 217). This long-term trend towards enhanced US-Japanese security cooperation manifested itself regionally in Japan's commitment to make a greater contribution to the defence of its own SLOCs, as specified in the 1978 Guidelines for Japan-US Cooperation (Berger 1993: 144). More fundamentally, however, Japan's status as an American energy protectorate saw it provide critical diplomatic and financial backing for American foreign policy in the Middle East, a convergence of interests most powerfully illustrated in Japan's assistance in bankrolling the first Gulf War (Purrrington 1992: 163). In both the Asia-Pacific and beyond, then, **Japan's vulnerability to energy supply disruptions fortified**

its alliance with the US. Given the alliance's importance in reassuring Japan's neighbours against the threat of revived Japanese militarism, its further strengthening significantly reinforced regional stability. The stability-enhancing consequences of Japan's energy dependence were additionally evident in the significance of the trade in energy services that cemented the Sino-Japanese entente after 1972. Although later to become a major energy importer, in the 1970s, China possessed oil and coal reserves significantly in excess of its domestic consumption requirements (Liao 2007: 27). This endowment provided a ready basis for the commercial cooperation institutionalized under the 1978 Long Term Trade Agreement (LTTA) that accompanied the signing of the Sino-Japanese Treaty of Peace and Friendship. At the core of the LTTA was a Chinese commitment to export coal and oil to Japan in exchange for wide-ranging economic cooperation, ranging from Official Development Assistance through to joint development enterprises centred on cultivating China's industrial base and further strengthening the two countries' economic complementarity (Liao 2007: 28). In reality, overly optimistic assessments of the size of Chinese oil reserves meant that China was unable to mitigate Japan's dependence on Middle Eastern oil on the scale initially envisaged (Lee 1984: 22–3). This qualification aside, the Sino-Japanese energy trade nevertheless yielded positive strategic externalities, most notably its provision of a commercial foundation for the Sino-Japanese leg of the USSino-Japanese entente. Additionally, the enticement of access to China's fossil fuel reserves gave Japan an alternative to increased dependence on Soviet oil and gas, while providing China with leverage with which to extract from Japan a diplomatic commitment to 'anti-hegemonism' as well as an economic commitment not to develop Soviet oil and gas resources along China's northern flank (Arnold 1989: 423; Woodard 1980: 126). In this way, once again, regional patterns of energy production and consumption reinforced patterns of strategic alignment, the agreement solidifying the US-Sino-Japanese entente while shoring up the continued containment of Soviet influence in Northeast Asia. Beyond their influence in shoring up relations among the US-Sino-Japanese entente, Japanese energy security concerns finally also strengthened Japan's ties with regional US allies, most notably Australia. Following the second oil shock, International Energy Agency (IEA) member countries agreed on intensified energy cooperation to insulate themselves from further supply disruptions from the Middle East. One aspect of this cooperation entailed an agreement to increase collective reliance on coal from member states endowed with surplus coal reserves, with the latter expected to increase production to make the agreement practically effective (IEA 1995). Despite baulking at committing to this agreement, Australia's coal production did nevertheless surge during the 1980s, primarily to feed the voracious demand for energy emanating from Japan (Leaver 2007: 106). The strategic consequence of this was to solidify Australia's diplomatic and commercial relationship with Japan, as Japan grew to be Australia's largest export market, while Australia emerged as a pivotal contributor to Japan's energy security (Leaver 2007: 106). Japanese energy security concerns thus again worked to strengthen regional order, with the booming Australia-Japan energy trade undergirding America's 'hub and spokes' alliance system with additional economic ballast. The foregoing narrative illustrates that Asian Japan's securitization of energy saw it adopt policies that enhanced regional strategic stability down to 1991. In a period otherwise marked by significant strains in the US-Japan bilateral relationship, Japanese energy security concerns following the first oil shock strengthened Japan's alliance with the US, provided a commercial foundation for Sino-Japanese rapprochement, and augmented the 'hub and spokes' alliance system's economic foundations. Within East Asia more generally, the export of energy services by China and Indonesia during this period additionally provided both countries with crucial hard currency, supplying the financial wherewithal necessary for them to kick-start export-oriented modernization programmes that embedded both within a liberal global economic order (Chow 1992: 755; Glassburner 1976: 1106). Beyond East Asia, meanwhile, India's poverty and dependence on subsidized Soviet oil conversely limited its impact on global energy markets, irrespective of its huge population (Duncan 1989: 76). Japanese voracity, Chinese energy abundance and Indian poverty and marginality thus jointly conditioned Asia's energy politics during the Cold War. From a human welfare perspective, this configuration was far from optimal. But from a regional order perspective, it was strongly conducive to strategic stability. Contrarily, the contemporary pattern of regional energy consumption and production differs radically from its Cold War counterpart and is already feeding into competitive dynamics that bode ill for the region's future. It is to a consideration of these dynamics that I now turn. 3. Energy security and Asian regional security, 1991–present Whereas energy security concerns intersected positively with alignment patterns and the regional military balance during the Cold War, the post-Cold War period has seen the erosion of this fortuitous constellation. Diplomatically, **the durability of the post-1972 US-Sino-Japanese entente is increasingly uncertain. China's rise has contrasted with two decades of Japanese stagnation, evoking Japanese fears of being marginalized in a new order** dominated by either a resurgent China or a US-PRC condominium (Hughes 2009: 846). In response, **America has sought to reassure Japan and shore up its primacy through the augmentation of its existing alliances** and the establishment of new 'strategic partnerships' with countries such as India, Vietnam and Indonesia (Twining 2007: 83–4). These moves have, in turn, prompted Beijing to strengthen its security ties both with established allies (e.g., Pakistan and Myanmar) as well as with American regional clients (Clarke 2008: 129; Medeiros 2005: 155–6). Complicating matters further, New Delhi's fears of Chinese encirclement have simultaneously spurred India to cultivate its own countervailing security ties with countries including America, Australia and Japan (Rehman 2009: 128). **The region's evolving military balance provides further evidence of the shift towards a more contested Asia**. China's military modernization has already raised the costs of a prospective US military intervention in East Asia as well as undermining the viability of the United States' commitment to a strategy of sea control (Shambaugh 2008: 301). The Indian Ocean has likewise seen a growth in naval competition as China and India's economic resurgence has triggered an expansion of their maritime interests, alongside a concomitant growth in their ability and willingness to field the naval capabilities they deem necessary to defend those interests (Kennedy 2010: 142; Pant 2009: 294). This incipient naval competition has found its terrestrial parallel as both countries have sought to outbid one another in cultivating their diplomatic, commercial and strategic ties with the countries of the Indian Ocean littoral (Blazevic 2009). Compounding these tensions, states' security calculations are now also being shaped by the end of the Cold War configuration of Japanese energy hunger, Chinese energy abundance and Indian marginality. Prior to the 1990s, Japan was Asia's sole energy super-consumer and its perceptions of energy vulnerability were mitigated by the reassurance of the US alliance. **China and India's subsequent rise has yielded two additional Asian**

energy super-consumers, which lack indigenous energy reserves adequate to fuel their modernization and which, furthermore, are not beneficiaries of American security guarantees (Rehman 2009: 137; Zhao 2008: 209). **Within a more uncertain strategic environment, the resulting increased vulnerability to supply disruptions of imported energy services has led both states to redefine energy as a national security issue, while introducing a new element of friction into relations among Asia's Great Powers** (Pant 2009: 279–80). The following appraisal of **Japanese, Chinese and Indian approaches** to energy security reveals that **all three have consequently securitized energy as a policy issue and have, furthermore, done so in an adversarial manner that is exacerbating regional rivalries**. **Lacking indigenous energy resources** and having renounced its Great Power ambitions, **Japan has historically depended on global markets embedded within an American-dominated security order to meet its energy needs**. Since 1991, economic and demographic stagnation has curbed the expansion of Japanese energy demand, partially mitigating supply adequacy concerns (Calder 2008: 127). This has, however, been offset by burgeoning Chinese and Indian demand for the world's scarce fossil fuels and by China and Indonesia's disappearance from the world market as net oil exporters. The turmoil attending the 'Arab spring' has moreover cast doubt on America's long-term credibility as a guarantor of Japanese access to Middle Eastern energy reserves, while the Fukushima disaster has also called into question nuclear power's suitability as a hedge against global energy market volatility. Lastly, Japan's conspicuous advocacy of action against climate change also constrains Tokyo from a renewed focus on coal-fired electricity generation and a corresponding increased reliance on longstanding allies such as Australia to service its energy needs (Choi 2009: 10). The **traditional expedients that have previously mitigated Japanese energy concerns are thus unlikely to prove as effective in doing so in the coming decades**. A recognition of this reality **appears evident in Japan's recent shift towards a more assertive form of energy diplomacy, one that is already stoking a more adversarial relationship** with other major energy consumers, most notably **China**. **Energy security anxieties inflamed Sino-Japanese tensions** throughout the 2000s, as both states sought increased access to regional energy reserves in the context of soaring global commodity prices and increased volatility among traditional Middle Eastern energy suppliers. Efforts to tap Siberia's vast oil and gas reserves were thus considerably delayed as China and Japan tussled over the preferred pipeline route for conveying these resources to Asia's consumers (Choi 2009: 16–7; Liao 2007: 39), with Japanese mistrust of China scotching initial proposals that the pipelines traverse Chinese territory. Similarly, notwithstanding periodic efforts to arrive at a final understanding regarding the joint exploration and exploitation of offshore reserves, **China and Japan remain embroiled in a protracted contest over gas reserves in the East China Sea** (Choi 2009: 10). Despite the existence of a compelling common interest in developing the region's energy resources for their mutual benefit, then, **energy concerns have emerged as a significant source of friction in the Sino-Japanese relationship, as both parties have conceptualized energy as a security issue, rather than an economic one**, and have furthermore apprehended the issue through the lens of an already tense and deteriorating bilateral relationship. While Japan's tendency to conceptualize energy as a national security issue is far from new, its increasingly assertive regional energy diplomacy does constitute a significant departure from Cold War precedents. **Nevertheless, Japan's energy diplomacy remains constrained within very definite boundaries deriving from its alliance with the United States**, the longevity and complexity of its enmeshment within global energy markets and its constitutional commitment to pacifism. **The same cannot be said for China**, which has by contrast only recently begun to explicitly identify energy as a national security priority, but which faces far fewer constraints than Japan in aggressively prosecuting its international energy interests. Unlike Japan, Chinese anxieties about supply adequacy are partially moderated by its capacity to exploit indigenous coal and oil reserves to meet its energy needs (Leung 2011: 1330). Nevertheless, **China's energy consumption is projected to soar in coming decades**, making it more dependent on energy imports over time and thus more vulnerable to supply disruptions (Leung 2011: 1330). Beijing's recognition of this vulnerability has already seen it move to redefine energy security as a security issue, rather than a purely economic one, and to accordingly adopt policies that reflect an unmistakable ambivalence towards the primarily market-based global energy order. The most well publicized of these policies has been China's allegedly mercantilistic use of overseas resource investments to establish control of scarce fossil fuel reserves at the expense of other consumers. Notwithstanding the controversy attending Chinese resource investments, their net overall impact on the global supply of available energy services nevertheless remains disputed (Victor 2007: 49) and is significant primarily for signalling official misgivings concerning the reliability of global markets in assuring Chinese energy security. These misgivings are in turn grounded in China's awareness of the present embeddedness of global energy markets within an American-dominated security order and Beijing's reluctance to fully integrate into this order lest it thereby submit to forever remaining an American energy protectorate.

Ensures nuclear war and extinction - multiple nuclear states, overlapping deterrence relationships, and lack of diplomatic checks

Suto and Tasaki ‘9

(Takaya, director of the Center for the Promotion of Disarmament and Non-Proliferation, Hirofumi, senior research fellow at the Center for the Promotion of Disarmament and Non-Proliferation, both at Japan Institute of International Affairs, **Abolishing Nuclear Weapons: A Debate**, pgs. 216
www.carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf)

Northeast Asia is one of the most **critical** regions with regard to nuclear issues. **Every state that has direct security stakes in the region has been closely engaged with nuclear weapons.** **The United States, Russia, and China are all parties to the** Nuclear Non-Proliferation Treaty (NPT), **while North Korea possesses nuclear weapons** in violation of the NPT. **Although neither Japan nor South Korea possesses any nuclear weapons, both are under the U.S. nuclear umbrella.** On top of all this, **the security environment** of this region **has remained volatile**, even since the end of the Cold War. **The possibility of major armed conflicts erupting in the Korean Peninsula and the Taiwan Strait has long been worrisome.** Additionally, several **unsolved territorial disputes exist in Northeast Asia**, and the **relationships among regional countries are not** necessarily **amicable**. Furthermore, **a rising China has continued to modernize its** military force, including its **nuclear capabilities**, while **its intentions remain unclear**. In the medium to long term, the United States and China may vie for hegemony and influence in the Asia-Pacific region, resulting in confrontation.

Thus we offer the following plan:

The United States federal government should substantially increase dredging along the United States' ocean coastline.

Solvency

Increasing ship size is the biggest problem for US port competitiveness - dredging is key to ensure coastal port depth

American Institute of Marine Underwriters Technical Services Committee 2006

(AIMU Technical Services Committee Dredging & Marine Contractors, May 2006, "Dredging and Marine Contractors", <http://www.aimuedu.org/aimupapers/Dredging&MarineContractors.pdf>)

Dredging is important to the conduct of maritime commerce throughout the U.S. Dredging activities occur on inland waterways, **within ports** and harbors, **on coastal areas**, as well as in support of new construction projects. **Maintenance of navigable waterways depths is a continuous process in many ports and harbors, whose bottom contours are constantly changing due to silting near the mouth of rivers. And, as ship's become larger and draft requirements** (depth of the ship's hull below the waterline) **increase, ports may need to deepen their channels** to allow for deeper draft ships, in order **to remain competitive with other ports.** In short, dredging is essentially the underwater removal of sand, soil or silt and its movement from one place to another, for purposes of deepening a channel or navigable waterway. Dredging often makes use of the removed material, for beach replenishment, land reclamation, or for fill in commercial or industrial projects.

Dredging solves coastal protection - best evidence that it's key to environmental protection

American Institute of Marine Underwriters Technical Services Committee 6

(AIMU Technical Services Committee Dredging & Marine Contractors, May 2006, "Dredging and Marine Contractors", <http://www.aimuedu.org/aimupapers/Dredging&MarineContractors.pdf>)

Over the years, **dredging has made a significant contribution to the development of many world economies.** Construction and maintenance of harbors, canals, and waterways have all directly benefited from the dredging industry. **Additionally, dredging is key in coastal protection, land reclamation, and environmental restoration projects.** In addition, there are many other applications to which dredging is key. In many places, **agriculture depends on irrigation and drainage with the use of canals.** Dredging is often used for infrastructure projects such as road construction. Trenches for pipelines and cables and more, are often aided with the assistance of dredging as well.

Trade Competitiveness Adv

Trade Comp Uq -- Low

The US is lagging behind in port dredging

Buchanan 14

(Susan Buchanan is a contributor for Marine Link, the home of breaking news regarding events, legislation and developments in the maritime industry.) <http://www.marinelink.com/news/dredging-growth-budget371913.aspx>

The FY 2015 civil works budget at USACE, the federal agency most engaged in dredging, is smaller than in 2014. Members of Congress this spring expressed concern about the new budget. **The United States is lagging a number of nations in port modernization and needs to do more deepening to fully participate in global trade,** they said. And, this goes beyond the need to deepen deep draft coastal ports. Inland rivers, vital to moving raw materials and grain to the export markets, need constant attention. **Factors driving world dredging, including growth in sea trade, bigger container ships, climate change and sea level rise have kept U.S. dredging from declining further. Globally, port and harbor expansions, new ports, enlarged navigation channels and maintenance work account for nearly three-fifths of dredging activity. Data obtained from the USACE for actual costs and dredging activities dating back to 1963 shows activity down, but costs soaring. China, the world's largest dredge market, and the United States are both "closed" or inaccessible to foreign competitors,** Netherlands-based Rabobank noted in its dredging outlook in September. European dredge markets are mostly open; non-Chinese Asian markets are mixed; and Latin America, the Middle East and Australia are open. In the most recent data available, China accounted for 29 percent of world dredging work in 2011, followed by Europe with 13 percent. Since then, China's CCCC, the parent company of dredgers CHEC, has signaled plans to become more active in global dredging.

Ports key to Trade

Improvements in port efficiency solve trade

USAID 4

“THE BROAD ECONOMIC IMPACT OF PORT INEFFICIENCY: A COMPARATIVE STUDY OF TWO PORTS”

http://pdf.usaid.gov/pdf_docs/PNADC612.pdf

More and more studies of the impact of transportation on trade and welfare are focusing on ports and border crossings. Clark, Dollar, and Micco (CDM) (2001) declare that **port efficiency can affect transportation costs and that an inefficient port can increase the distance to a shipper's export market by 60 percent.** In a study of Asia Pacific Economic Cooperation (APEC) countries, Wilson, Mann, and Otsuki (WMO) (2003) explore the importance of port efficiency relative to other factors that enhance or constrain trade, such as customs performance, the regulatory environment, and e-business. Calculating indicators for each factor, WMO find that **improvement in port efficiencies yields the largest increases in trade flows; specifically, an improvement of just 0.55 percent in the port efficiency indicator has the same impact as 5.5 and 3.3 percent improvements in customs performance and e-business indicators, respectively**

Ports key to foreign trade and jobs

DCA '07

(The Dredging Contractors of America is a non-profit trade association that has represented the interests of the U.S. dredging and marine construction industry and its members for over thirty years. *The present membership includes ten large companies, fifteen small companies and three associate members* that operate on the Atlantic, Gulf and Pacific coasts, the Great Lakes, the inland rivers, and in Hawaii and Alaska.) <http://www.dredgingcontractors.org/about.htm>

Up and down the U.S. coastline, in every port city, the dredging industry is keeping our nation's trading gateways open for business. Together, these seaports handle 95 percent of



America's foreign trade. The Port of Oakland, one of the largest general cargo ports in the United States, lost market share over the last decade due to navigation channels that were unable to handle the world's largest container ships. After many stops and starts, a project to improve the Port's shipping lanes has been brought to fruition. **With deeper channels, the Port's expansion generates 4,100 new jobs, \$500 million in annual business**

revenues and \$15 million in new state and local taxes. In addition to fulfilling the need for a productive port industry to keep U.S. products competitive, our seaports are responsible for contributing \$780 billion to the Gross Domestic Product and for 15 million jobs. While the primary goal of dredging is to create and maintain safe and efficient navigation channels, the excavated soil is often used for environmentally beneficial purposes, including the creation of fish and wildlife habitats. In most cases, when beach-quality sand is dredged, it is placed either directly on the shore or in the surf zone to be delivered to the shore by natural processes. Without the nation's inland and coastal waterways, the cost of most products that American businesses and consumers rely on would increase. That's because the towing and barge industry provides the most cost-effective mode of transporting freight. **In each of the 41 states served by our inland waterways, maintenance dredging is essential. Without periodic dredging, the cost advantage provided by water transportation would be lost.** Throughout the year, dredging contractors work to ensure the safe and secure transportation of agricultural and forest products and of strategic chemical and energy resources in bulk. As a by-product of dredging, sand is reclaimed for low-cost aggregate and fill material. This aggregate is used to construct and maintain roads, to rebuild levees, or for other public purposes.

Dredging Today, 6/24/14

<http://www.dredgingtoday.com/2014/06/24/dredging-already-pays-off-for-yuzhny-port-ukraine/>

Access to capesize vessels (over 200,000 deadweight tons) provides a competitive advantage during transportation of ore and coal cargoes. Ukraine, with a water depth of 15 meters, was able to ensure the use of only 70% of the tonnage of such vessels and the vessels had to complete loading in the

roads (i.e. in the approaches to the port area). **This significantly increased the cost of freight, as well as the time and cost of loading. Competition in the market has become so fierce in recent years that domestic ports and stevedoring companies have been forced to develop a whole system of technological measures for completing the loading of capesize vessels in the roads in order to meet the growing demand for transportation via this type of vessels. “Cargo owners working with iron ore transported it with Capesize vessels because it is cost-effective. It was necessary to implement this project in order to provide a high level of customer service, preserve transit goods, and attract additional cargo flows, thereby increasing port revenue and revenues into budgets of all levels. The source of funding for the investment project is exclusively the earmarked port charges that ship owners pay when ships are entering the port. In this case, the investment in this project is the result of the net profit after payment of taxes and duties into budgets of all levels, as well as payment of dividends to the state,”** the Yuzhny port’s Director Oleksandr Lahosha said in 2012, a few months before the start of the dredging of the approach channel and waters of two berths to a depth of 21 meters, which is one of the most ambitious infrastructure projects in Ukraine

Ship size has increased in the last 50 years, and trade ports will grow if we dredge ports.

Nick McCrea 2014 (reporter for BDN)

Searsport’s harbor needs to be deeper if Maine is going to tap into growing trade potential along the East Coast, the state’s transportation commissioner and other officials said Wednesday. Maine Department of Transportation Commissioner David Bernhardt; Jim Theriault, vice president of materials handling for Sprague Energy and Capt. David Gelinas of the Penobscot Bay Pilots Association highlighted the project during a meeting of the Action Committee of 50 at Hollywood Casino on Wednesday morning. AC50 is a nonprofit economic development corporation geared toward improving trade and logistics in Maine as a way of attracting and retaining jobs in the region. **Searsport’s last major harbor project was completed in 1964. It increased the depth of the channel 35 feet, allowing for large commercial cargo vessels to dock at Mack Point to offload or receive goods. Maine’s second-busiest commercial shipping channel hasn’t been touched since. “The ships have gotten bigger in the past 50 years,”** Bernhardt said. **“I don’t see this project as being any different than upgrading and maintaining our state’s highways and bridges.”** The proposed \$12 million dredging project would increase the depth of the channel by 5 feet and expand the channel’s dimensions. In all about 929,000 cubic yards of material would be removed from the harbor, according to the U.S. Army Corps of Engineers, which is planning the project. **Currently, if a large ship wants to dock in Searsport, it has to wait for high tide or come with a lighter load so it doesn’t sit as low in the water. Both options increase transportation costs and affect the bottom lines of companies who choose to ship through Maine. “We need this project now for the ships that are coming now,”** he said. While the project would improve safety for the ships the port currently sees, it also would make trips feasible for larger ships with deeper drafts. Opponents to the dredging project have expressed concerns about stirring up toxins in the silt and that the materials pulled out of the channel might be disposed of too close to the mouth of the Passagassawakeag River. The project goes before the Civil Works Review Board this summer. The Army Corps of Engineers says that in relation to other dredging projects across the country, this one is small. For example, Boston is seeking approval for a \$300 million project to dredge its harbor. That is expected to take three or four years and will include underwater drilling and blasting. The Searsport dredging project carries implications for the rail industry as well, as train tracks tie the port to much of Maine, the Canadian provinces and the Midwest. Bernhardt said the state is closely watching Maine, Montreal and Atlantic Railway’s bankruptcy sale to Fortress Investment Group. Fortress has significant capital and, according to Bernhardt, a “commitment to make this work.” Fortress has said little about its plans for MM&A’s rail network, and Bernhardt said he hopes those plans won’t involve abandoning the tracks in the future. To this point, there’s been no indication that is part of Fortress’ plan, he said. Investments in railway improvements will be vital to Maine’s trade and industry future, according to Bernhardt. **Dredging the port will bring more goods for Maine’s rail industry to transport and ease its recent struggles, he added.**

AT Competitiveness Theory Wrong

Competitiveness isn't illusory – infrastructure strongly affects economic performance.

Ron **MARTIN** Economic Geography @ Cambridge '6 in *Economic Geography: Past Present and Future* eds. Sharmistha Bagchi-Sen and Helen Smith p.162-163

However, just as in a Coasian view of the world, where it is the organisation of productive assets in a firm that gives rise to the analysis of the firm as a unit of production, so nations, **regions and cities too can be seen as collections of assets**, variously organised, **so that it is reasonable to think in terms of the competitiveness of that bundle of assets, even if Krugman is right in advocating caution about making analogies between the firm and the nation** or region. Furthermore, although most regional units used for policy and analytical purposes are based on political or administrative boundaries that need bear little correspondence to economic relationships, **there are certain features about** such **'official' regions that do give them** some measure of **meaning as economic entities**. Thus **regional authorities often have** tax-raising powers and **responsibilities for spending on public services**, utilities and **infrastructure**, **all of which impact on** local **firms**. Also, as noted above, **regional authorities and bodies are becoming increasingly active in other areas of local economic governance**, whether as the delivery agents of decentralised national government policies, or as active policy agents in their own right and capacity. It may be that regions are difficult to define as 'essential' economic units, but the fact is that a process of 'regional institutionalisation' of policy intervention and responsibility appears to be underway that is endowing politically and administratively defined regions with some degree of functional economic meaning. It is as part of this institutionalisation process that **regional authorities and bodies are busy devising policies to improve and upgrade the competitiveness and productivity of the businesses**, workers and organisations in their jurisdictions. **If only because of this rise of the region as an arena of economic governance and intervention, and the increasing trend for policymakers to think of regions as the sites of competitive advantage, it is important to appraise** the different senses in which the term **'regional competitiveness'** is used.

Krugman's model is flawed – regional competitive advantages assist growth.

Allen **SCOTT** Urban Planning @ UCLA '6 in *Economic Geography: Past Present and Future* eds. Sharmistha Bagchi-Sen and Helen Smith p. 64-65

Four specific lacunae of the core model merit further attention in this connection: First, the model identifies productive activity only in terms of monopolistically competitive firms with fixed and variable costs. In its initial formulation it makes no reference whatever to the dynamics of the social division of labor and the networks of transactional relations that flow from this process. In later formulations (e.g. Krugman and Venables 1996; Venables 1996) an intermediate goods industry is assumed by fiat to exist in the model. However, the model is silent on the endogenous relations that exist in reality between the vertical structure of production and spatially dependent transactions costs. These relations tend to be of special interest and importance in clustered economic systems where intra and inter-firm transactional structures are usually extremely complex (e.g. Scott 1983). Accordingly, **the model** pays inadequate attention to the wider logic of locational convergence/divergence, and, in particular, it **is deficient in its grasp of the individual regional economy as a source of competitive advantage** (cf Porter 2001). Second, these failings are compounded by the model's neglect of local labor market processes, such as information flows, job search patterns, labor-force training, and so on (Peck 1996). True enough, **Krugman pays lip service to the existence of processes like these, but makes no effort to incorporate them into the workings of the core model**. Third, **region-based learning and innovation processes are conspicuous by their absence from the core model**. A consequence of this absence is that **the core model pays little or no attention to patterns of temporal change in the qualitative attributes and competitive advantages of**

regional production systems. The rich parallel literature by economists such as Jäte et al. (1993), Audretsch and Feldman (1996), or Acs (2002) on regional innovation systems compensates in some degree for this omission, but **the model itself remains more or less impervious to conceptions of technology-led growth** (Acs and Varga 2002). Fourth, given its resolute commitment to microeconomic forms of analysis, **the model actively suppresses the possibility that collective region-based strategies of economic adjustment might play a role in the construction of localized competitive advantages** (Neary 2001). In practice, such strategies are often highly developed in regions with active production systems, both in the private sphere (e.g. interfirm collaboration), and in the public sphere (e.g. local economic development and training programs under the aegis of regional agencies). **Numerous researchers have shown time and again that strategies like these are critical to the creation of regional competitive advantages and an important tool in the search for improved rates of local economic growth** (Bianchi 1992; Cooke 1999; Saxenian 1994; Storper and Scott 1995). Some of the lacunae pointed out here can no doubt be dealt with in part by appropriate reformulations of the model (such as the introduction of commuting costs to reflect the spatial organization of local labor markets, or explicit reference to coalition formation processes), but at the cost of enormous increases of algebraic complexity. **The Krugman model is for the most part a black box that occludes what by many accounts must be seen as some of the most important aspects of regional economic growth and development.** As such, it casts only a very limited light on the full play of externalities, competitive advantage, and locational agglomeration in economic geography. Needless to say, the model is silent on wider social and political issues of relevance to the analysis of agglomeration, such as, for example, region-specific forms of worker socialization and habituation, the emergence of local governance structures, or the historical shifts that occur periodically in technical-organizational structures of accumulation, and that greatly impact regional trajectories of development.

Competitiveness is economically important – the quality of networks determines capital investment and growth.

Roberto **CAMAGNI** Department of Management, Economics and Industrial Engineering, Politecnico di Milano ‘2
 “On the Concept of Territorial Competitiveness: Sound or Misleading?” *Urban Studies* 39 (13) p. 2397-2398

In this field, two opposite and extreme positions confront each other. On the one side, the pessimistic one, merging (and sometimes adding up) different and disparate concerns, from the survival of local cultures to the fear about the economic and political power of multinational corporations, from the possibility of environmental dumping to the challenge of emerging countries to employment levels in rich countries. On the other side, **the optimistic, ‘don’t worry’ position, claiming that open markets have sufficient self-adjusting mechanisms to ensure local well-being and that the law of comparative advantage will assure each country a role** in the international division of labour, irrespective of its international competitiveness. On the political side, what has been called ‘localisation’—namely, ‘the growing desire of people for a greater say in their government’ (World Bank, 1999) through higher levels and effective ways of participation in decision-making (OECD, 1999a)—derives exactly from a growing feeling of insecurity among citizens about the capability of governments to take care of them and rightly interpret their needs. In fact, globalisation affects their lives in many respects, destroying the shelters once provided by physical space (local captive markets), by local specificities (consumption and production habits), local organisational models and the ‘patriotism’ of local forms. On the other hand, national governments increasingly give up policy tools that in the past proved effective, from monetary policies (attributed to supranational authorities, managing wide—optimal?—currency areas), to fiscal policies (due to tight budget constraints), from exchange rate policies (in monetary unions) to many industrial policies (replaced by common supranational regulations and trade agreements). Concerns are real, at least because they in fact exist, and are rational in many respects, as will be shown later in the paper; demands for greater participation and regional federalism are also perfectly correct, the danger residing in possible policy outcomes totally oriented towards defensive attitudes, separatism and closure—the regional equivalent of national protectionism. On the purely economic side, **one may judge opportunities and threats generated by globalisation as equivalent, balanced and therefore neutral in terms of spatial effects.** But **this judgement changes radically if one considers some new, qualitative aspects of the present international economic picture: the increasing importance of knowledge factors**, of immaterial elements linked to culture, taste and creativity in present economic processes and the characteristics of what could be called the production function of these elements and the ways of their accumulation. In fact, **these**

immaterial **elements develop through slow learning processes, fed with information**, interaction and long-term investments in research and education (Amin and Wilkinson, 1999; Keeble and Wilkinson, 2000). Like all learning processes, **they are inherently localised and cumulative, as they are embedded in human capital, interpersonal networks**, specialised and highly skilled local labour markets and local innovative milieux (Camagni, 1991b; Lundvall and Johnson, 1994; Asheim, 1996). When analysed in an international perspective, **technical progress ceases to be a public good, perfectly mobile and accessible to everybody; on the contrary, it circulates rapidly only inside some restricted networks, as it requires high-quality immaterial assets in order to be properly adopted and its profits appropriated** (Savy and Veltz, 1995, ch. 1). While firms can access an increasing stock of codified knowledge, they require greater investments in tacit knowledge, such as human capital, management and organisation, to derive tangible benefits from technological change and innovation. ... **Firms may now benefit less from imitation and ‘free’ technology spillovers, as they require substantial investments in innovation and in cooperation and networking to access the stock of global knowledge** (OECD, 1999b, p. 3). We see here a complex dialectics and confrontation between the hyper-mobility of some production factors and the territorial ‘anchorage’ of some others, which act as crucial location factors for the more advanced production processes. The likely result is the cumulative strengthening of the centripetal forces of growth (scale and scope economies, all sorts of increasing returns) and the centrifugal forces of territorial exclusion and decline. It is perfectly true that technologies and capital goods may be marketed and utilised almost everywhere (better: they have to be used everywhere, as they impose internationally shared standards in product and process quality) and that telecommunication networks and facilities are (more or less) ubiquitous, but the skills and relational capital required for their proper or innovative use are by no means available everywhere (Graham, 1999).

AT Competitiveness Not key to Hegemony

Competitiveness is key to growth differential -- 1ac Tellis says that's key to hegemony

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 “On the Concept of Territorial Competitiveness: Sound or Misleading?” *Urban Studies* 39 (13) p. 2400-2401

(3) **Krugman warns us against a fast acceptance of the policy implications of the ‘strategic trade theory’**, to which he himself gave relevant contributions. In a world of increasing returns (at the firm level and at the level of the local milieu), where history, chance, accident and policy intervention explain international specialisation and trade patterns better than factor proportions or the attributes and inherent differences of single countries, strategic industrial policy could be very effective and justified. **Krugman’s opposition in this case regards the difficulty, costs and risks involved in attributing to a public administration the choice of sectors and products that will prove successful in the future.** I think though that some **risks are worth taking up, especially if the target is not a product** but a technological ☐ lie`re, **and if the strategic approach means taking into account the potential effects of general political decisions, not directly concerned with tariffs or export support.** In the late 1950s and early 1960s, the explicit political decision by the Italian government to postpone the introduction of colour-tv broadcasting meant imposing a competitive disadvantage on the domestic electronic industry that was never later made up, with wide negative external effects on the entire technological trajectory. Conversely, **in many countries, the early introduction of environmental regulations on emissions meant the early development of an environmental technology industry, taking advantage of all kinds of positive feed-back effects.** Certainly, a careful assessment of alternative strategies should be made (for example, military expenditure vs medical care and research), but it is the kind of evaluation that public administrations should normally make, in all intervention fields (for example, in infrastructure provision). Moreover, **intervention policies may well be horizontal, nonsectoral policies, like those addressed to the improvement of the quality of production factors:** human capital, social overhead capital, **regional accessibility, information and communication networks**, to which we can add institutional interventions on rules and regulations. These are not policies targeted (selectively and ‘strategically’) to specific sectors, but may be crucial for many important ones.⁷ Is this neo-mercantilism? Once again, yes, in the progressive sense of historical mercantilist thought and practice. We owe to the mercantilist view the abatement of feudal restrictions on goods mobility inside each country, the improvement of internal infrastructure in order to enhance accessibility to (national and international) markets, the utilisation of the trade surplus in order to widen money supply, reduce interest rates, speed up investments and encourage entrepreneurship (Tiberi, 1999). (4) Considering not just international trade patterns (as in international trade theory) but also factors movements, and international capital flows in particular, **a competitive production system may mean not just a good export performance but more interestingly an international attractiveness with respect to both ‘real’ and ‘financial’ capital.** This last fact may easily turn a potential export surplus into a trade balance deficit, allowing the country to pay for its (cheap) imports and for a rising standard of living through the international trust of the capital markets (the present condition of US external accounts comes close to this last picture). This is why competitiveness and technical change should never be hampered in an open country, through any sort of social resistance to change. David Ricardo, the father with Robert Torrens of the comparative advantage principle, even if convinced of the job-killing nature of technology, in his famous chapter “On machinery” affirmed that The employment of machinery could never be safely discouraged in a State, for if a capital is not allowed to get the greatest net revenue that the use of machinery will afford here, it will be carried abroad, and this must be a much more serious discouragement to the demand for labour, than the most extensive employment of machinery (Ricardo, 1817/1971, p. 388).⁸ Leaving the assumption of factor immobility of the abstract model of international trade and assuming a dynamic perspective, the relevance of concerns about the efficiency of the local production sectors vis-à-vis the other countries appears very clearly: not only will a reduced efficiency hamper external demand, but it will force both capital and labour to migrate, as it will be shown later on.

AT Heg Doesn't Solve Wars

Hegemony prevents GPW

Thayer 7—Prof of Political Science @ Mo State

Bradley, Professor @ Missouri State, American Empire: A Debate, pg. 42

Peace, like good health, is not often noticed, but certainly is missed when absent. Throughout history, peace and stability have been a major benefit of empires. In fact, pax Romana in Latin means the Roman peace, or the stability brought about by the Roman Empire. Rome's power was so overwhelming that no one could challenge it successfully for hundreds of years. The result was stability within the Roman Empire. Where Rome conquered, peace, law, order, education, a common language, and much else followed. That was true of the British Empire (pax Britannica) too. So it is with the United States today. Peace and stability are major benefits of the American Empire. The fact that America is so powerful actually reduces the likelihood of major war. Scholars of international politics have found that the presence of a dominant state in international politics actually reduces the likelihood of war because weaker states, including even great powers, know that it is unlikely that they could challenge the dominant state and win. They may resort to other mechanisms or tactics to challenge the dominant country, but are unlikely to do so directly. This means that there will be no wars between great powers. At least, not until a challenger (certainly China) thinks it can overthrow the dominant state (the United States). But there will be intense security competition—both China and the United States will watch each other closely, with their intelligence communities increasingly focused on each other, their diplomats striving to ensure that countries around the world do not align with the other, and their militaries seeing the other as their principal threat. This is not unusual in international politics but, in fact, is its "normal" condition. Americans may not pay much attention to it until a crisis occurs. But right now states are competing with one another. This is because international politics does not sleep; it never takes a rest. "

Decline in Hegemony causes global conflict

Auslin 10—Resident Scholar @ The American Enterprise Institute

Michael, Three Strikes against U.S. Global Presence, 4/2/10, <http://www.aei.org:80/article/101869>

Are these three strikes the writing on the wall, the blueprint for how American power will decline in the world, with a whimper and an empty purse? The choice to reverse these trends will grow increasingly difficult in coming years, until we reach a point of no return, as did Great Britain and Rome. The result, unhappily, will not be a replay of the 20th century, when Washington stepped up after London's decline. It will almost certainly be the inauguration of decades, if not centuries, of global instability, increased conflict, and depressed economic growth and innovation. Such is the result of short-sighted policies that reflect political expedience, moral weakness, and a romantic belief in global fraternity. Happily for us, perhaps, is that the lessons of history still hold, and that we can chose to fight the dimming of our age if we but understand the stakes at hand.

Food Price Spikes → War

Blips in food prices kill billions

Tampa Tribune, 1-20-96

On a global scale, food supplies - measured by stockpiles of grain - are not abundant. In 1995, world production failed to meet demand for the third consecutive year, said Per Pinstrup-Andersen, director of the International Food Policy Research Institute in Washington, D.C. As a result, grain stockpiles fell from an average of 17 percent of annual consumption in 1994-1995 to 13 percent at the end of the 1995-1996 season, he said. That's troubling, Pinstrup-Andersen noted, since 13 percent is well below the 17 percent the United Nations considers essential to provide a margin of safety in world food security. During the food crisis of the early 1970s, world grain stocks were at 15 percent. "Even if they are merely blips, higher international prices can hurt poor countries that import a significant portion of their food," he said. "Rising prices can also quickly put food out of reach of the 1.1 billion people in the developing world who live on a dollar a day or less." He also said many people in low-income countries already spend more than half of their income on food.

Food shortages lead to World War III

Calvin 98

William Calvin, theoretical neurophysiologist at the University of Washington, Atlantic Monthly, January, The Great Climate Flip-Flop, Vol 281, No. 1, 1998, p. 47-64)

The population-crash scenario is surely the most appalling. Plummeting crop yields would cause some powerful countries to try to take over their neighbors or distant lands -- if only because their armies, unpaid and lacking food, would go marauding, both at home and across the borders. The better-organized countries would attempt to use their armies, before they fell apart entirely, to take over countries with significant remaining resources, driving out or starving their inhabitants if not using modern weapons to accomplish the same end: eliminating competitors for the remaining food. This would be a worldwide problem -- and could lead to a Third World War -- but Europe's vulnerability is particularly easy to analyze. The last abrupt cooling, the Younger Dryas, drastically altered Europe's climate as far east as Ukraine. Present-day Europe has more than 650 million people. It has excellent soils, and largely grows its own food. It could no longer do so if it lost the extra warming from the North Atlantic.

AT Heg Decline Inevitable

Heg sustainable

Beckley 12-- Research Fellow, Belfer Center

Michael, "China's Century? Why America's Edge Will Endure" International Security, volume 36, issue 3, pages 41-78

http://belfercenter.ksg.harvard.edu/publication/21649/chinas_century_why_americas_edge_will_endure.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%253A+belfer%252Fpublications+%2528Belfer+Center+for+Science+and+International+Affairs+-+Latest+Publications%2529

Two assumptions dominate current foreign policy debates in the United States and China. First, the United States is in decline relative to China. Second, much of this decline is the result of globalization and the hegemonic burdens the United States bears to sustain globalization. Both of these assumptions are wrong. The United States is not in decline; in fact, it is now wealthier, more innovative, and more militarily powerful compared to China than it was in 1991. Moreover, globalization and hegemony do not erode U.S. power; they reinforce it. The United States derives competitive advantages from its hegemonic position, and globalization allows it to exploit these advantages, attracting economic activity and manipulating the international system to its benefit. The United States should therefore continue to prop up the global economy and maintain a robust diplomatic and military presence abroad.

Decline isn't inevitable and heg is key to global stability

Friedman and Mandelbaum Nov. 11—World Renowned Journalist, Professor and Director of the American Foreign Policy program at the Johns Hopkins University, School of Advanced International Studies

Thomas and Michael, America Really Was That Great

http://www.foreignpolicy.com/articles/2011/10/11/america_really_was_that_great?page=0,1

In 2011, a robust American global role continues to be vital. With the Arab world in upheaval; with Europe's common currency, the euro, in crisis and the future of the European Union itself in doubt; and with China, the world's fastest-growing economy and fastest-rising power, having all but exhausted the possibilities of its model for economic growth based on an undervalued currency and ever-rising exports, a dynamic American economy and a stabilizing, reassuring American global presence are as important now as they have ever been, if not more so. Sustaining them, though, depends on America's rising to meet its major challenges, and doing so immediately. Somehow it has fallen slightly out of fashion to talk about "American power." Those on the left often do not fully understand its constructive uses, concentrating instead on the occasional abuses that always attend the exercise of power. Those on the right often do not fully understand its sources -- that American power is not simply a matter of will but of means, and those means need to be constantly renewed and refreshed. In the second decade of the 21st century, that depends on successfully meeting the country's four major domestic challenges. Can America respond to them in appropriate fashion? We are optimistic that it can. While the country is paralyzed at the top -- the political system is stuck and is not generating the necessary public policies -- it remains extraordinarily vibrant at the grassroots. If one were to design a country ideally suited to flourish in the 21st century, it would look more like the United States than any other. In a world in which individual creativity is becoming ever more important, America supports individual achievement and celebrates the quirky. In a world in which technological change takes place at warp speed, requiring maximal economic flexibility, the American economy is as flexible as any on the planet. In a world in which transparent, reliable institutions, and especially the rule of law, are more important than ever for risk-taking and innovation, the United States has an

outstanding legal environment. In a world in which even the cleverest inventors and entrepreneurs have to try and fail before succeeding, American business culture understands that failure is often the necessary condition for success. None of these traits has gone away during the current crisis. Over the course of its history, the United States has rarely failed to meet its major challenges. It is in fact the current failure to do so that is unusual -- one might even say "exceptional." When tested, from the days of the revolution in the 18th century to the drawn-out Cold War struggle in the 20th, America and Americans have found ways to excel. To continue to do so, the country would do well to learn from the experience of one of its iconic companies, IBM, which is celebrating its centennial this year. IBM essentially invented the personal computer, but didn't fully understand the implications of its own creation. The company, like too many Americans, came to think of its exceptional status as self-perpetuating and permanent. This led to complacency and strategic mistakes that almost proved fatal. How did IBM lose sight of the world it invented? Listen carefully to the answer of Samuel Palmisano, IBM's current chairman and CEO, when we asked him that question: "You spend more time arguing amongst yourselves over a shrinking pie than looking to the future," he said, and so "you miss the big turn" that you have entered, even a turn that your own company invented. When you mistakenly start thinking of other departments and colleagues in your own company as the opposition -- rather than the other companies against which you must compete -- you have lost touch with the world in which you are operating. This can be as lethal for countries as it is for companies. America's political parties today have strayed off course, Palmisano told us, "because they have focused on themselves" more than on the priorities of the country as a whole. IBM got back on track, under new leadership, by focusing on and coming to understand the new environment in which it was operating and then mobilizing and inspiring the whole company to master the next big change in technology, networked computing. America needs to do something similar. It is obvious what its core competency is in the 21st century. The United States has greater potential than any other country to thrive in the future by becoming the world's most attractive launching pad -- the place where everyone wants to come to work, invent, collaborate, or start something up to get the most out of our new hyperconnected world. And they will want to come to America because it has the best infrastructure, the most dynamic schools, the most open economy, the most inviting immigration policies, the most efficient and stable markets, the most government-funded research, and the best rules to promote risk-taking and prevent recklessness. That is how America remains as "exceptional" in this century as it was in the last two -- not by launching another moon shot but by becoming the world's favorite launching pad for millions of moon shots. American power and prosperity, and global stability and prosperity, are all riding on the country's success in meeting its challenges. A world influenced by a United States powerful enough to provide political, economic, and moral leadership will not be a perfect world, but it will be a better world than any alternative we can envision. That means that the status of American exceptionalism is more than an academic controversy or a partisan political squabble in the United States. Everyone, everywhere, has an interest in America taking the steps necessary to remain an exceptional country.

Trade Good Generic

Trade solves war

Emiel **Awad** October 29, **2013** ERASMUS UNIVERSITY ROTTERDAM faculty of Social Sciences, Master Thesis in International Public Management and Public Policy. “Economic Interdependence, Trade, and War: A Theoretical and Empirical Analysis”

War and trade do not merely differ in their strategic consequences, they also differ in the amount of costs. War is generally a costly endeavor, whilst trade is mostly a cheap way to achieve material gains. In order to start a war, it is necessary to build and uphold a military force, while the costs of trade are (among other things) made up of transportation costs. These transportation costs are throughout history always lower than the costs of building a military force. For this reason, liberals argue that economic interdependence increases the benefits associated with allowing free trade and joining the division of labor, and lowers the value of war when holding the benefits of war constant. War is not necessary if free trade is a more efficient option. Rosecrance (1986) shows this by making a distinction between so-called ‘trading- states’ and ‘military-political’ or ‘territorial states’. The former realize that trade is a more valuable option, while the latter believe war is the most efficient means to achieve national ends. The conquest of territory is generally a negative sum game,” or at best a zero sum game, while the goal of economic welfare of trading-states is mostly a positive sum-game. There is less reason for conflict between states in positive sum-games than negative sum-games, as both can achieve gains from peaceful cooperation with trade. Liberals tend to emphasize that states are ‘trading-states’, which receive benefits from an economic interdependent system. This provides reasons for sustaining peaceful coexistence:

Even if trade incentivizes war in the short term, the long term cost is always greater than gains

Emiel **Awad** October 29, **2013** ERASMUS UNIVERSITY ROTTERDAM faculty of Social Sciences, Master Thesis in International Public Management and Public Policy. “Economic Interdependence, Trade, and War: A Theoretical and Empirical Analysis”

The main argument that is brought up to support the positive effects of economic interdependence is mainly built on the costly long-run effects of war. When a state decides whether to uphold friendly or unfriendly relations with another state, the state considers the long-run effects of its short-run actions. Although economic dependence increases the value of war, this increase is only an increase in the short-run. In the long-run, an attacked state no longer allows free trade with the aggressor. We have shown earlier that economic dependence increases the value of free trade. For this reason, a potential aggressor incurs a larger cost when economic dependence is high, and it therefore is less willing to use war to obtain the goods. With this line of argumentation, the effect of economic interdependence on the occurrence of war is ambiguous, as in the short-run the benefits of war increase, but in the long-run the value of war decreases. War thus has a large opportunity cost, which means that peace is more likely to occur. For this line of argumentation to succeed however, it is necessary to assume that the long-run costs have a higher weight than the short-run benefits. Below, we will use the last argument as our starting point of the model. The notion that war has a long-run opportunity cost is one of the main arguments of liberal theorists. After explaining the liberal position, we will show that this line of argumentation is problematic using predominantly realist arguments.

War post world war 2 has decreased dramatically and trade has increased

Jackson and Nei 14

Matthew O. Jackson, professor of economics at Stanford and Stephen Nei member of the dept. of economics at Stanford. “Networks of Military Alliances, Wars, and International Trade” February 2014

https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=NASM2014&paper_id=368

The relationship between trade and wars is a complicated one. One thing that is evident, is that **the number of wars per country has decreased dramatically post World War II**, and that **this decrease comes even though the number of countries has increased** - so that there are many more pairs of countries that could be going to war. For example, **the average number of wars per pair of countries per year from 1820 to 1959 was .00056 while from 1960 to 2000 it was .00005, less than a tenth of what it was in the previous period**.¹⁶ We see this in Figure 8 5.1.2 Trade **International trade has had two major periods of growth** over the last two centuries, one **in the latter part of the nineteenth century** and beginning of the twentieth, **disrupted by the first world war, and then picking up again after the second world war, recovering to its 1914 levels through the 1960s and then continuing to grow at an increasing rate thereafter**. In particular, Estevadeordal et al. (2003) finds that trade per capita grew by more than 1/3 in each decade from 1881 to 1913, while it grew only 3 percent per decade from 1913 to 1937.

Coastal Erosion Adv

Yes Resource Wars

Resource wars are possible and occur - climate change creates stressors that make them likely, adaptation is key

Klare 6

Professor of peace and world security studies @ Hampshire College [Michael Klare, "The Coming Resource Wars," TomPaine.com, Date: March 11, 2006, pg.

<http://www.waterconserve.org/shared/reader/welcome.aspx?linkid=53710&keybold=water%20and%20conflict>.

"As famine, disease, and weather-related disasters strike due to abrupt climate change," the Pentagon report notes, **"many countries' needs will exceed their carrying capacity"** -- that is, their ability to provide the minimum requirements for human survival. **This "will create a sense of desperation, which is likely to lead to offensive aggression"** against countries with a greater stock of vital resources. "Imagine eastern European countries, struggling to feed their populations with a falling supply of food, water, and energy, eyeing Russia, whose population is already in decline, for access to its grain, minerals, and energy supply." Similar scenarios will be replicated all across the planet, as **those without the means to survival invade or migrate to those with greater abundance** -- producing endless struggles between resource "haves" and "have-nots." It is this prospect, more than anything, that worries John Reid. In particular, he expressed concern over the inadequate capacity of poor and unstable countries to cope with the effects of climate change, and the resulting risk of state collapse, civil war and mass migration. "More than 300 million people in Africa currently lack access to safe water," he observed, and "climate change will worsen this dire situation" -- provoking more wars like Darfur. And even if these social disasters will occur primarily in the developing world, the **wealthier countries will also be caught up** in them, whether by participating in peacekeeping and humanitarian aid operations, by fending off unwanted migrants or by fighting for access to overseas supplies of food, oil, and minerals. When reading of these nightmarish scenarios, it is easy to conjure up images of desperate, starving people killing one another with knives, staves and clubs -- as was certainly often the case in the past, and could easily prove to be so again. But these scenarios also envision the use of more deadly weapons. "In this world of warring states," the 2003 Pentagon report predicted, "nuclear arms proliferation is inevitable." As oil and natural gas disappears, more and more countries will rely on nuclear power to meet their energy needs -- and this "will accelerate nuclear proliferation as countries develop enrichment and reprocessing capabilities to ensure their national security." Although speculative, these reports make one thing clear: when thinking about the calamitous effects of global climate change, we must emphasize its social and political consequences as much as its purely environmental effects. Drought, flooding and storms can kill us, and surely will -- but so will wars among the survivors of these catastrophes over what remains of food, water and shelter. As Reid's comments indicate, no society, however affluent, will escape involvement in these forms of conflict.

Oceanic Region key to US Economy

Oceanic region key to the US economy - crucial for trade, fisheries, and energy use Cicin-Sain et al 6

(Biliana, Director, Gerard J. Mangone Center for Marine Policy, and Professor, College of Earth, Ocean, and Environment, Department of Political Science and International Relations, and School of Urban Affairs and Public Policy, University of Delaware, Additional authors: Miriam C. Balgos, Shelby M. Hockenberry, Amanda A. Wenczel, and Kateryna M. Wowk -- "Toward a Vision for Maryland's Ocean", Report Presented to the Coastal Zone Management Division, Maryland Department of Natural Resources by the Gerard J. Mangone Center for Marine Policy, University of Delaware, December 2006, http://www.ceoe.udel.edu/cmp/Toward_Vision_for_MD_Ocean_July30_07.pdf)

The ocean provides a host of services which greatly contribute to local, state, and national economies.

Ninety percent of world trade is carried by ships. **The United States, the world's largest trading nation, accounts for 19 percent of world imports and 12 percent of world exports** of merchandise. In total, **67 percent of consumer goods in the United States come by ship** (IMO 2006). Furthermore,

coastal zones yield 90 percent of the global fisheries on which 400 million fishers rely (Cicin-Sain et al. 2004). On the United States east coast, the coastal states from Maine to North Carolina receive \$1 billion of economic benefits annually from the fisheries of the ecosystem (EPA 2005), yet **76 percent of global marine fish stocks cannot withstand additional fishing pressure** (Cicin-Sain et al. 2006). Concerning energy use in the United States, **development on approximately 43 million acres leased on the outer continental shelf produce more than 25 percent of domestic natural gas and more than 30 percent of domestic oil supplies** (MMS 2007). Travel and tourism is the largest industry in the world, with \$3.5 trillion of revenues in 1999. Much of this revenue is related to ocean activities (IOC 2003). In Maryland, ocean-related businesses in Worcester County generated statewide economic impacts of over \$900 million (Table IV.2). Finally, **newer uses of ocean space and resources, including offshore aquaculture and offshore wind power, are currently evolving and have the potential to generate additional revenue.**

Solvency

Dredging Key

Dredging is necessary to ensure ships can enter the ports- and prevents pollutants

AAPA 09—American Association of Port Authorities (“Questions and Answers about America's Ports and the Harbor Maintenance Tax”, 2009, <http://www.aapa-ports.org/Issues/content.cfm?ItemNumber=1004>)

Today's modern ships can require drafts of up to 45 or 50 feet. Sediment also has to be removed to provide turning basins for ships and adequate water depth along waterside facilities. Without routine dredging, areas of navigation channels could change from 40 to 35 feet in one year. Such a dramatic change would prohibit many ships from entering the channel or force ships to carry only a fraction of their intended load. Channels that accumulate sediment become dangerous because they increase the risk of ships running aground. Groundings are expensive not only in cargo and time lost, but groundings may also pollute the environment if ships' hulls are breached are cargo is spilled.

Inherency

AT WRRDA

WRRDA only ensures port projects in a few ports, doesn't solve all

MTS 2014 (MTS Matters, "Congress got it done", May 23, <http://mtsmatters.com/2014/05/23/congress-got-it-done/>)

Project ideas graduate from feasibility studies to be authorized for funding by Congress. **WRDA is how the Harbor Maintenance Tax and Trust Fund became law in 1986. It is how the near-completed 50-foot deepening in the Port of New York/New Jersey was authorized in 2000. And it is how the Corps of Engineers will be given the go-ahead to deepen and otherwise modify channels in the ports of Boston, Savannah, Jacksonville, Canaveral, Palm Beach, Freeport, and Corpus Christi.**

The WRRDA focuses on inland waterways, not ocean ports

Ohio Country Journey 14

(June 10th, "Obama signs WRRDA", <http://ocj.com/2014/06/obama-sign-wrrda/>)

President Obama signed the long-awaited Water Resources Reform and Development Act of 2014. This final reauthorization bill, which will improve the reliability and efficiency of the U.S. inland waterways system, was passed by the House on May 20 and the Senate on May 22. "This legislation provides an important step toward the infrastructure improvements vital to our nation's inland waterway system, and we thank the President for signing this bi-partisan bill into law," said Martin Barbre, National Corn Growers Association president. "Our locks and dams transport our cargoes today, but were built in the 1920s and 1930s to accommodate far smaller loads and far less river traffic. For farmers in particular, this is crucial, as more than 60% of the nation's grain exports are transported by barge. The need is urgent; U.S. farmers and businesses rely upon this transportation channel to create economic opportunities at home and supply markets abroad. Now, it is imperative that we continue our momentum related to waterways improvements by passing the diesel user fee."

Offcase Answers

AT States CP - Jurisdiction

States and local ports are bound by federal regulations which require federal funding before new projects can begin

Gibbs, 2011 – Subcommittee Chairman (Bob, “Memorandum on the Hearing on “The Economic Importance of Seaports: Is the United States Prepared for 21st Century Trade Realities?”, October 21, 2011, <http://republicans.transportation.house.gov/Media/file/112th/Water/Water%20Briefing%20Memo%20%20%2010-26-11.pdf/MM>

Infrastructure Investment Investing in ports not only creates jobs during the construction period, but supports wider and long lasting opportunities. Knowing the value of maritime trade, localities and port authorities have invested in the infrastructure of their ports. The AAPA finds that American ports are investing \$2 billion annually in marine terminal capital improvements. The Port of New Orleans has spent \$400 million in recent years on landside improvements that make it more efficient and attractive to shippers. Acknowledging that 12% of the country's international containers pass under the Bayonne Bridge, The Port Authority of New York and New Jersey have pledged \$1 billion toward the bridge retrofit that will allow for Post Panamax ships to sail under it and into the Atlantic Coast's busiest port. The cost benefit analysis of the project estimates that this single project will provide a \$3.3 billion dollar annual national benefit. **Local investments optimize existing infrastructure and**

increases port efficiency; however, many projects are required to utilize Federal funds and processes.

The operation and maintenance of shipping channels is paid for by the Harbor Maintenance Trust Fund (HMTF), which is funded from a .125% ad valorem tax levied on cargo imports at American ports. The HMTF is a user fee that grows based on the value of cargo coming to ports. These monies pay for the necessary dredging that keeps navigation channels open for business. In fiscal year 2010, **the HMTF grew by \$1.3 billion; however, only \$828,550,000 was spent in total operations** of the fund as the balance was diverted to deficit spending. Because the HMTF is not ‘off-book’ on paper there is a balance, however the reality is that all of the balance has been used to offset other government spending. **Because of this inequitable allocation, many of the country's most valuable navigation channels are under maintained, reducing the cost effectiveness and efficiency of maritime trade.**

While some FY 2012 presidential budget requests reflect goals of the NEI, in the areas of navigation there appears to be a disconnect between the production of exports and the transportation of exports overseas. The International Trade Administration request was \$526 million towards the administration costs of implementation. Thirty million dollars of Small Business Administration grants are to be disbursed to states to support export activities. Transportation is addressed in the President's budget request with a sweeping surface transportation authorization request and \$70.5 billion to fund the Federal Highway Administration. However, maritime trade, the most prevalent form of exportation, does not receive as much funding necessary to support a significant development much less doubling exports.

The President's Army Corps of Engineers Civil Works program appropriation request in the Administration's FY 2012 budget submittal is \$4.631 billion, which is approximately 6.1% below the annualized Continuing Resolution for FY 2011 of \$4.929 billion. These funds are distributed to the many missions of the Corps civil works program including investigations, construction, operations and maintenance, levee safety, flood control and environmental restoration. **The Corps budget has a profound effect on waterborne commerce as it shoulders the bulk**

of coastal infrastructure development and operation and maintenance activities. Unlike surface transportation funding, there is no Federal credit assistance programs for the construction,

operation and maintenance of ports' navigation channels. Even local ports with willing investors

are often required to wait on Federal appropriations to pursue needed projects. Two accounts within the budget of the Corps have significant impact on maritime trade:

Construction - The President's budget requests \$1.48 billion for the Construction account. This is \$210 million less than the FY 2011 annualized Continuing Resolution of \$1.69 billion. These funds are used for the construction of river and harbor, flood damage reduction, shore protection, environmental restoration, and related projects specifically authorized or made available for selection by law. Almost half of this budget request is for flood damage reduction projects. However, more alarming is that approximately \$470 million are for ecosystem restoration projects that provide Rule or no economic benefits, while navigation projects would only receive \$280 million.

Operation and Maintenance - The President's budget also requests \$2.314 billion for expenses necessary for the preservation, operation, maintenance, and care of existing river and harbor, flood control and related projects. This is \$47 million less than the FY 2011 annualized Continuing Resolution of \$2.361 billion.

The budget would use only \$691 million from the Harbor Maintenance Trust Fund resulting in an increase in the estimated balance from \$6.12 billion to \$6.93 billion at the end of FY 2012. In addition, while proposing paltry amounts be appropriated from the Harbor Maintenance Trust Fund, the President's budget proposes to expand the authorized purposes of the fund for activities not typically associated with the Corps of Engineers maintenance of navigation channels.

Among the persistent barriers to trade, only one-third of the nation's federal navigation projects are currently at their authorized depths and widths, and 8 out of the nation's 10 largest ports are not at their authorized depths and widths. Exporters are required to wait for high tide to get out of port or are forced to ship in lighter loads. This reality is especially burdensome for the many raw material exporters whose products are heavy and whose ships require deeper drafts.

Overall, the President's proposal does not address some of the nation's most profound infrastructure needs. It does not direct Congress to pursue multiyear reauthorizations that provide stability and predictable funding to projects. Developing world-class infrastructure cannot be hurried to completion in two years to comply with a truncated funding schedule. Even beyond funding, a transportation infrastructure bill could include no cost policy changes that would support maritime trade. **The proposed legislation does not streamline the permitting processes, an action that would expedite valuable projects. Permit backlog delays the timeline for construction and increases costs associated with navigation projects that could promote maritime trade.** Also, legislation that would support maritime trade would allow non-federal project sponsors to supply more capital to navigation projects without having to wait on the appropriations process. **Re-authorizations, permanent policy changes, and regulatory reduction would unlock private capital and hasten project completion, benefitting maritime trade and the economy as a whole existing river and harbor, flood control and related projects.** This is \$47 million less than the FY 2011 annualized Continuing Resolution of \$2.361 billion.

Federal law prevents the CP – states can act alongside the federal government – but they're still subject to federal requirements

Dyke 10— Business Writer at The Greenville News (David, "Two options for port funding, Graham says", The Greenville News, 11/19, ProQuest, <http://proxy.lib.umich.edu/login?url=http://search.proquest.com.proxy.lib.umich.edu/docview/807392435?accountid=14667>) EL

The Ports Authority says **it needs to deepen the Charleston harbor to remain competitive following the widening of the Panama Canal in 2014. The widening is expected to quicken a trend toward megaships that will change global logistics and open new business opportunities for South Atlantic shipping facilities.** The Charleston port can accommodate the big ships now, but only during high tide. Port officials have said a \$400,000 federal earmark to study the deepening of the Charleston harbor is a critical initial step in a \$300 million expansion. **Federal law requires the Corps of Engineers to conduct the study before improvements to a harbor can be made. Without it, no deepening is permitted and it must be funded through the appropriations process,** the officials said. They said **there is no other way. Business leaders, including executives from Boeing South Carolina, Sonoco, BMW Manufacturing, Milliken & Co. and Michelin North America, have stressed that the port is South Carolina's single most important natural asset and will help shape the state's economy for generations.** Officials with the Georgia Ports Authority said they reached a major milestone Wednesday with their plan to expand the Savannah Harbor. It was reached, the officials said, when the Corps of Engineers released its draft environmental impact statement to the public and agencies for review and comment. "The study's release is a significant step forward for the Savannah harbor expansion project and addresses a critical need of our country's transportation infrastructure," said Curtis J. Foltz, the Georgia authority's executive director. The \$40 million scientific study details plans to avoid impacts to natural resources and proposes mitigation for any unavoidable impacts of the project. GPA officials say larger vessels offer more capacity and lower the cost per container compared to current Panamax vessels. That's an important economic consideration for such companies as BMW and Michelin, which both have large Upstate operations and are major users of the Port of Charleston. The Georgia harbor expansion will deepen the Savannah River from its current 42-foot depth to as much as 48 feet. The Atlanta Journal-Constitution reported the project would cost an estimated \$551 million with 70 percent borne by the federal government. Georgia's legislators have approved \$102.3 million of the remaining costs, the newspaper reported. Long term, DeMint said he wants to restructure the way the Corps of Engineers identifies priorities and funds projects. He also wants to reform the Harbor Maintenance Trust fund to allow South Carolina to get back the money it contributes. Currently, the fund can't be used for new construction to make a port deeper, as Charleston proposes. He said he wants to meet with officials from the port, the Corps of Engineers and legal advisers to determine if the port can proceed with its own feasibility study and have that study recognized by the federal agency. **Graham has said states have the right to fund such studies on their own. However, federal officials have rejected port studies conducted that way and states didn't get reimbursed for the money they spent, he said. Port officials worry that if they pay the initial feasibility-study cost, it will jeopardize federal funding for the project. Normally, a cost-sharing system is in place where the federal government will pay 40 percent of the construction bill to deepen the harbor,** with the state paying the remaining 60 percent, a port spokesman said. DeMint told The News recently that he understands the port's importance to the state and its economy, but it was

time to draw the line on earmarks. Graham this week joined DeMint and Sen. Mitch McConnell, the Senate Republican leader, in calling for a two-year ban on the practice. Raju Chebium of Gannett's Washington Bureau contributed to this report.

Federal construction contracts are legally binding – attempts to circumvent will cause the ports to be sued

Edmonson 5—associate editor of the Journal of Commerce (Robert G., “In a deep hole”, Journal of Commerce, 3/21, ProQuest, <http://proxy.lib.umich.edu/login?url=http://search.proquest.com.proxy.lib.umich.edu/docview/312932173?accountid=14667>) EL

"I think we have nine or 10 projects on the suspended list. It means that the president is not making a budget request for those projects. That's a grave concern for us," Sanford said. **"We've entered into legally binding project cooperation agreements with the government. Our ports have put pretty sophisticated funding mechanisms in place to pay their part of the cost. The government can pull out of these contracts with no recourse, but project cooperation agreements are written such that the ports can't pull out without being dragged into federal district court."**

A port that's unable to complete a channel deepening could find itself at a competitive disadvantage with a rival that has recently dug its channels to 45 or 50 feet. East Coast ports are already beginning to see more calls from post-Panamax container ships that have been bumped off Pacific trade lanes by 8,000-TEU vessels. Now those 5,000- to 6,000-TEU ships are being routed to Atlantic ports from Asia via the Suez Canal. "It's already happening. We're seeing lightering - Freeport, Bahamas, comes to mind. They're making a good living essentially lightering off the large ships, or spreading the cargoes to smaller vessels," Sanford said.

AT States CP - Federal Funding Key

The states can't fund coastal and deep sea ports - it's a violation of the constitution - comparative evidence that dredging is the most federal responsibility of the USFG

AAPA, 11 (American Association of Port Authorities, March 2011, "Getting Back to Basics: The U.S. Government's Historic Role in Developing and Maintaining Landside and Waterside Connections to Seaports," <http://aapa.files.cms-plus.com/PDFs/Transportation%20and%20the%20Constitution1.pdf>)

Over time these constitutional responsibilities have been further defined and **our Constitution has formed the basis for the U.S. government to play a significant role in our nation's transportation and infrastructure system**. As established in the timeline on page 2, over the years the leaders of our country saw that **it was in the national interest to ensure that our ports**, waterways, railways and highways **benefited from federal oversight** and support. For four centuries, beginning with the founding of the Jamestown colony, seaports have served as a vital economic lifeline for America by bringing goods and services to people, creating economic activity and enhancing the overall quality of life. **Seaports continue to be the critical link for access to the global marketplace here in the United States** handling more than 99 percent of cargoes. **Maintaining our national infrastructure that supports foreign and interstate commerce is not only a federal responsibility** but is in the national interest as established by our forefathers. In fact, **improving waterways and coastal ports for navigation and national security is the most federal of infrastructure responsibilities**, dating to the early missions assigned the Continental Army by then General George Washington.

Federal investment key to solve trade competitiveness - state funding trades off with inland waterways and raises transportation costs

AAPA 09—American Association of Port Authorities ("Questions and Answers about America's Ports and the Harbor Maintenance Tax", 2009, <http://www.aapa-ports.org/Issues/content.cfm?ItemNumber=1004>)

Requiring local ports to raise their own funding for maintenance dredging could pit U.S. ports against each other, the result of which could impact commerce and national security. **The concept also alters the fundamental Federal role in maintaining the national navigation system**. Like a tonnage tax, **local funding**, if passed on to port users, **could increase transportation costs**, pricing bulk commodities out of international markets either through increased charges at the currently utilized port(s) or **by increasing inland transportation costs due to diversion from the inland waterway system**.

Federal matching is key - state funding is already happening now, only federal money can resolve gaps in funding

Nagle, 2012- President and CEO of the American Association of Port Authorities (Kurt J., "Testimony of Kurt J. Nagle President and CEO of the American Association of Port Authorities Before the United States House of Representatives Appropriations Committee Energy and Water Development, and Related Agencies Subcommittee", Budget Hearing- U.S. Army Corps of Engineers, Assistant Secretary, Chief of Engineers, March 7, 2012, <http://aapa.files.cms-plus.com/PDFs/EWTestimony%20Mar2012%20Final.pdf>)

Ports are dynamic, vibrant centers of trade and commerce, but what is most important to understand is that **seaports rely on partnerships**. **Seaports invest more than \$8 billion every year to maintain and improve their infrastructure**. **In recent years, however, this commitment has not been adequately matched by the federal government**. **Federal funding for dredging federal navigation channels has slowed and**

decreased, especially for new construction. Further, **maintenance dredging is sorely underfunded**, despite a more than \$6 billion (and growing) surplus in the Harbor Maintenance Trust Fund.

AT States CP - Race to the Bottom

Race to the bottom means the counterplan doesn't solve trade competitiveness - creates congestion at the biggest ports that magnifies transportation costs

Nagle, 2012- (President and CEO of the American Association of Port Authorities (Kurt J., "Testimony of Kurt J. Nagle President and CEO of the American Association of Port Authorities Before the United States House of Representatives Appropriations Committee Energy and Water Development, and Related Agencies Subcommittee", Budget Hearing- U.S. Army Corps of Engineers, Assistant Secretary, Chief of Engineers, March 7, 2012, <http://aapa.files.cms-plus.com/PDFs/EWTestimony%20Mar2012%20Final.pdf>)

Some may suggest that we should concentrate federal investment in just a few ports, but we must take a closer look at the diversity of port cargo and the impact of only deepening a few ports. Often a container port doesn't handle significant bulk cargo, dangerous cargo or refrigerated cargo. Additionally, often **smaller ports** **are located near key U.S. manufacturers to aid in their imports and exports**. Each of our 50 states relies on about 15 seaports to handle its imports and exports. **Concentrating port activity to a smaller geographic area will result in increased transportation costs** and more congestion on roads and rails. Total throughput should not be the only calculation in determining federal investment.

AT 24/7 Ports CP -- Union Strikes Turn

The counterplan makes high transportation costs inevitable -- either it massively raises dock worker wages or it leads to union strikes

Depillis 13

Lydia Depillis, writer for the Huffington post, "Chinese ports operate around the clock. Why don't America's?" August 5, 2013, <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/08/05/chinese-ports-operate-around-the-clock-why-dont-americas/>

It's no secret that China exports a lot of stuff, nor that the country's ports are the busiest in the world -- seven of the top 10 ports by container volume are Chinese. But it's harder to get information about how productive those ports are. For competitive reasons, ports themselves don't want to disclose how quickly ships are loaded and unloaded, and most national governments don't require it. But here's who does want to know that: Shipping lines, as well as the companies that own the goods they carry. Five years ago, a shipping trade publication called the Journal of Commerce embarked upon a project to collect that data, and convinced 17 carriers representing 70 percent of global ocean transport to turn over what they knew about how quickly containers move and how long their vessels remain in their berths. The result is a white paper ranking the world's ports by how effective they are in moving cargo for their size. Surprise surprise: U.S. ports come out looking pretty dismal. The U.S., not that great at operating ports. (Journal of Commerce) Why are China, Japan, South Korea, and the UAE so much better at moving containers around than the United States? They're not, necessarily -- it's more a matter of down time. Chinese ports, for example, operate around the clock with gangs of dockworkers who aren't paid that much or treated that well. **Most U.S. ports operate only one or two shifts a day, since longshoremen's union contracts require overtime pay for working in the middle of the night** (and their pay is already higher than it is for any other blue-collar trade, reaching into the six figures). So **even if they're as efficient at moving containers on a per-hour basis, they'll still be less productive overall. That has real consequences for shipping companies**, since their vessels can't simply dump their cargo, pick up another load, and move on. Instead, they have to book it to the next port of call, which is less fuel efficient than moving at a more leisurely pace, costing them tens of thousands of dollars more for gasoline. In addition, **it slows down the pace of goods generally, which raises costs for consumers. "It's a bottleneck in the supply chain"**, and it requires extra planning on the part of Wal-Mart, so they can get their goods in their stores when they need to be," says the Journal of Commerce's Peter Tirschwell, who oversaw the report. "All supply chain disruptions raise costs for the consumer, no question about it." Not only that, but **they can simply push business elsewhere**. A relatively new port north of Vancouver, Prince Rupert, has been attracting ships that used to go to Seattle and Tacoma, since containers can get to the Midwest faster and cheaper from there via train than they would if they were snarled for days in a congested port. Tirschwell says that even though U.S. imports and exports cooled off during the recession, they're still rising, and ships are getting bigger. If U.S. ports don't get more productive, costs will just keep going up, putting a real pinch on the stuff we're able to buy and sell overseas. The **barely-avoided longshoremen strikes** last year **show how difficult it can be to change how ports operate**. But it seems like making it easier to work during the night would be a good way to start.

Union strikes are a death knell to transportation competitiveness

The Economist 2

("Dock around the clock", November 28th 2002, <http://www.economist.com/node/1468299>)

Last year the **ports handled goods worth \$310 billion. For retailers and manufacturers who rely on goods and materials from Asia, and access to its markets, this trade is vital. When the employers shut the ports for ten days** in October, **five car factories had to shut down as** their "just-in-time" **supply chains ground to a halt**. President Bush, invoking the Taft-Hartley act for the first time in 24 years,

sent a federal negotiator to bring the sides together within the 80-day period called for in the act. That negotiator has earned his turkey on this week's Thanksgiving Day.

AT Politics - Bipartisanship

Port maintenance has bipartisan support

The Advocate, 6/12/14

<http://theadvocate.com/news/opinion/9227495-123/our-views-good-step-for>

If Louisiana has a particular interest in any legislation on water projects, **the general interest of the United States, as well as our own state's interests, appears to be served by the new water projects bill.** While the entire Louisiana delegation in Congress deserves commendation for support of the measure, a leading role was played by U.S. Sen. David Vitter, R-La. As the ranking Republican on the Senate Environment and Public Works Committee, he worked on the bill and was the lone Louisiana representative on the House-Senate conference committee that produced the final bill. It clearly bears at least some of Vitter's handiwork, as he has been a longtime critic of the U.S. Army Corps of Engineers, and the water bill bears many specific injunctions to the Corps on water development. There is also authorization for the Morganza-to-the-Gulf hurricane protection project for coastal Louisiana. It's also a good sign that Congress — so tragically divided over policy and personalities — can get together to pass anything. So Vitter and colleagues had to exercise a healthy bit of compromise. Those muscles are atrophying for lack of use these days. Further, it's worth noting that an authorizing bill is not the same thing as a funding bill, so eventually appropriations will be needed to fund the projects. But the authorizations are likely to lead to action and in the case of the nation's ports, it's a key issue. **Both parties are interested in foreign trade, from President Barack Obama to House Republicans, with the leading dissents being from national unions. Yet the president's goal of doubling American trade is not possible if the nation fails to maintain its ports, railroads and highways — all expensive propositions. The new bill "gives us the green light to maintain our ports, dredge our waterways and build the critical water infrastructure we need to create jobs and to protect the people and communities that power our nation's economy,"** said U.S. Sen. Mary Landrieu, D-La. Following up on a cause championed in the House by U.S. Rep. Charles Boustany, R-Lafayette, **the bill frees up more money, misdirected for years in the federal budget, to be spent on ports and dredging. This involves no tax increase, but uses the money collected in cargo fees but misdirected in recent budgets. Trade is a big issue, but water development is one of the elements in growing the nation — and Louisiana — economically. "More than one in five jobs in the United States is supported by trade,"** Boustany noted. "In Louisiana alone, over 400,000 jobs are supported by trade." **That is the reason we hope to see continued support in our delegation for the Port of New Orleans and the many other important ports in Louisiana, and the new water bill helps that longterm process along with its provisions.**

Port dredging has bipartisan support in congress

Atlanta Journal-Constitution 11 (Atlanta Journal-Constitution, December 17, 2011, newspaper for Atlanta, "Ga. senators applaud deal to fund deeper ports" <http://www.ajc.com/news/ga-senators-applaud-deal-1263143.html>) MB

Georgia's U.S. senators Saturday applauded a bipartisan deal in Congress that frees up federal dollars to deepen waterways to East Coast seaports such as Savannah, the nation's fourth busiest container port. The breakthrough was part of the year-end spending bill that passed the Senate by a 67-32 vote Saturday. The bill contains a new \$460 million account for port projects, which previously were funded either through the president's spending recommendations or via earmarks requested by members of Congress for pet projects in their home states. However, the federal budget crisis took earmarks off the table, with Republican lawmakers refusing to seek them and President Barack Obama vowing to veto them. In a statement Saturday, **Georgia Sens. Johnny Isakson and Saxby Chambliss called this new source of ports money a "commonsense approach toward funding of the critical harbor deepening projects at our nation's ports now that earmarks are a thing of the past."** They issued the statement **jointly along with fellow Republican Sen. Lindsey Graham of South Carolina,** who gave details of the port-funding plan to reporters Friday. The Georgia ports authority is funding for a \$600 million

proposal to dredge the river channel to the Port of Savannah, and needs the federal government to foot about \$360 million of the bill. Port officials are pushing to get final construction permits by next summer.

PORTS Caucus is rallying bipartisan support now

Keller 11 (Robert Kellar, Oct, 25, 2011, "Hahn and Poe Found Bipartisan PORTS Caucus")

<http://hahn.house.gov/press-release/hahn-and-poe-found-bi-partisan-ports-caucus>) MB

Washington, DC – Today, **Congresswoman Janice Hahn** (D-CA) and **Congressman Ted Poe** (R-TX) **announced the formation of the bipartisan House Ports Opportunity, Renewal, Trade, and Security (PORTS)**

Caucus. The caucus' mission will be to promote the importance of our ports to the nation's economy and the need to secure them. United States ports support 13.3 million jobs and account for \$3.15 trillion in business activity to the economy. "As a long-time advocate for the Port of Los Angeles, I understand how vital the ports are for our nation's economy," explained Rep.

Hahn. **"This bi-partisan caucus will bring together Members who represent diverse ports across the country,**

so we will find ways together to promote our ports and keep them safe." "Promoting and protecting our nation's ports is critical to both national security and economic security," said Rep. Poe. "Ports are the gateway in and out of the United States. They are our country's link

to the rest of the world and the global economy. I look forward to working with Representative Hahn to building an effective congressional caucus that advocates on the behalf of ports nationwide." The United States is served by more than 350 commercial sea and river ports that support 3,200 cargo and passenger handling facilities. Each day United States ports move both imports and exports totaling some \$3.8 billion

worth of goods through all 50 states. Additionally, ports move 99.4 percent of overseas cargo volume by weight and generate \$3.95 trillion in international trade. Given the importance of ports to our national economy, they must remain competitive and secure. "Ports are a critical piece

of our nation's economic infrastructure," said Geraldine Knatz, Executive Director of the Port of Los Angeles. "Maintaining secure, reliable and efficient seaports will generate much needed jobs and make American businesses more competitive abroad. Because our nation's seaports must remain a national priority, we stand ready to support Rep. Hahn and Rep. Poe's efforts to advance the issues of ports and the communities they

serve." "We support Congressman Poe's efforts to raise awareness of all the nation's ports and port communities," said Floyd Gaspard, Executive Director of the Port of Port Arthur. "Our ports represent a vital part of our nation's economic engine and are key to continued success. Seaports of

all sizes from all regions of the country create sustainable jobs and economic growth. The benefits of a efficient port reach every American in every state. As a region and a nation, sound investments in port infrastructure create supply chain efficiencies and make us globally

competitive." **Every congressional district in the country is dependent on U.S. ports,** from the products on store shelves to the technology in our living rooms. Ports allow businesses, large and small, access to markets around the world and the opportunity to

grow and create new American jobs.

AT Biodiversity DA -- Impact Defense

This evidence disproves uniqueness and turns impact- Biodiversity is higher than ever AND extinctions always result in an increase in biodiversity

Donald **Dodds** (President of North Pacific Research, an environmental think tank) **2007** "THE MYTH OF BIODIVERSITY" Online

Biodiversity is a corner stone of the environmental movement. But there is no proof that biodiversity is important to the environment. Something without basis in scientific fact is called a Myth. Lets examine biodiversity through out the history of the earth. **The earth has been around for about 4 billion years. Life did not develop until about 500 million years later. Thus for the first 500 million years bio diversity was zero. The planet somehow survived this lack of biodiversity.** For the next 3 billion years, the only life on the planet was microbial and not diverse. Thus, the first unexplainable fact is that the **earth existed for 3.5 billion years, 87.5% of its existence, without biodiversity.** Somewhere around 500 million years ago life began to diversify and multiple celled species appeared. Because these species were partially composed of solid material they left better geologic records, and the number of species and genera could be cataloged and counted. The number of genera on the planet is a indication of the biodiversity of the planet. Figure 1 is a plot of the number of genera on the planet over the last 550 million years. The little black line outside of the left edge of the graph is 10 million years. Notice the left end of this graph. **Biodiversity has never been higher than it is today.** Notice next that **at least ten times biodiversity fell rapidly; none of these extreme reductions in biodiversity were caused by humans.** Around 250 million years ago the number of genera was reduced 85 percent. Now **notice that after this extinction a steep and rapid rise of biodiversity.** In fact, if you look closely at the curve, you will find that **every mass-extinction was followed by a massive increase in biodiversity.** Why was that? Do you suppose it had anything to do with the number environmental niches available for exploitation? If you do, you are right. Extinctions are necessary for creation. **Each time a mass extinction occurs the world is filled with new and better-adapted species.** That is the way evolution works, its called survival of the fittest. Those species that could not adapted to the changing world conditions simply disappeared and better species evolved. How efficient is that? Those that could adapt to change continued to thrive. For example, the cockroach and the shark have been around well over 300 million years. There is a pair to draw to, two successful species that any creator would be proud to produce. To date these creatures have successful survived six extinctions, without the aid of humans or the EPA. Now notice that **only once in the last 500 million years did life ever exceed 1500 genera, and that was in the middle of the Cretaceous Period around 100 million years ago,** when the dinosaurs exploded on the planet. Obviously, **biodiversity has a bad side.** The direct result of this explosion in biodiversity was the extinction of the dinosaurs that followed 45 million years later at the KT boundary. It is interesting to note, that at the end of the extinction the number of genera had returned to the 1500 level almost exactly. Presently biodiversity is at an all time high and has again far exceeded the 1500 genera level. Are we over due for another extinction? A closer look at the KT extinction 65 million years ago reveals at least three things. First the 1500 genera that remained had passed the test of environmental compatibility and remained on the planet. This was not an accident. Second, **these extinctions freed niches for occupation by better-adapted species.** **The remaining genera now faced an environment with hundreds of thousands of vacant niches.** Third, it only took about 15 million years to refill all of those niches and completely replaced the dinosaurs, with new and better species. In this context, a better species is by definition one that is more successful in dealing with a changing environment. Many of those genera that survived the KT extinction were early mammals, a more sophisticated class of life that had developed new and better ways of facing the environment. These genera were now free to expand and diversify without the presences of the life dominating dinosaurs. Thus, as a direct result of this mass extinction humans are around to discuss the consequences of change. If the EPA had prevented the dinosaur extinction, neither the human race, nor the EPA would have existed. The unfortunate truth is that the all-powerful human species does not yet have the intelligence or the knowledge to regulate evolution. It is even questionable that they have the skills to prevent their own extinction. Change is a vital part of the environment. **A successful species is one that can adapt to the changing environment, and the most successful species is one that can do that for the longest duration.** This brings us back to the cockroach and the shark. This of course dethrones egotistical homosapien-sapiens as god's finest creation, and raises the cockroach to that exalted position. A fact that is difficult for the vain to accept. If humans are to replace the cockroach, we need to use

our most important adaptation (our brain) to prevent our own extinction. Humans like the Kola bear have become over specialized, we require a complex energy consuming social system to exist. If one thing is constant in the universe, it is change. The planet has change significantly over the last 4 billion years and it will continue to change over the next 4 billion years. The current human scheme for survival, stopping change, is a not only wrong, but futile because stopping change is impossible. Geologic history has repeatedly shown that species that become overspecialized are ripe for extinction. A classic example of overspecialization is the Kola bears, which can only eat the leaves from a single eucalyptus tree. But because they are soft and furry, look like a teddy bear and have big brown eyes, humans are artificially keeping them alive. Humans do not have the stomach or the brain for controlling evolution. Evolution is a simple process or it wouldn't function. Evolution works because it follows the simple law: what works—works, what doesn't work—goes away. There is no legislation, no regulations, no arbitration, no lawyers, scientists or politicians. Mother Nature has no preference, no prejudices, no emotions and no ulterior motives. Humans have all of those traits. **Humans are working against nature when they try to prevent extinctions and freeze biodiversity.** Examine the curve in figure one, **at no time since the origin of life has biodiversity been constant.** If this principal has worked for 550 million years on this planet, and science is supposed to find truth in nature, by what twisted reasoning can fixing biodiversity be considered science? Let alone good for the environment. Environmentalists are now killing species that they arbitrarily term invasive, which are in reality simply better adapted to the current environment. Consider the Barred Owl, a superior species is being killed in the name of biodiversity because the Barred Owl is trying to replace a less environmentally adapted species the Spotted Owl. This is more harmful to the ecosystem because it impedes the normal flow of evolution based on the idea that biodiversity must remain constant. Human scientists have decided to take evolution out of the hands of Mother Nature and give it to the EPA. Now there is a good example of brilliance. We all know what is wrong with lawyers and politicians, but scientists are supposed to be trustworthy. Unfortunately, they are all too often, only people who think they know more than anybody else. Abraham Lincoln said, "Those who know not, and know not that the know not, are fools shun them." Civilization has fallen into the hands of fools. **What is suggested by geologic history is that the world has more biodiversity than it ever had and that it maybe overdue for another major extinction. Unfortunately, today many scientists have too narrow a view.** They are highly specialized. They have no time for geologic history. This appears to be a problem of inadequate education not ignorance. What is abundantly clear is that **artificially enforcing rigid biodiversity works against the laws of nature**, and will cause irreparable damage to the evolution of life on this planet and maybe beyond. **The world and the human species may be better served if we stop trying to prevent change** and begin trying to understand change and positioning the human species to that it survives the inevitable change of evolution. If history is to be believed, **the planet has 3 times more biodiversity than it had 65 million years ago. Trying to sustain that level is futile and may be dangerous.** The next major extinction, change in biodiversity, is as inevitable as climate change. We cannot stop either from occurring, but we can position the human species to survive those changes.

Biodiversity collapse doesn't cause extinction

Sagoff 1997 (Mark, Senior Research Scholar @ Institute for Philosophy and Public policy in School of Public Affairs @ U. Maryland, William and Mary Law Review, "INSTITUTE OF BILL OF RIGHTS LAW SYMPOSIUM DEFINING TAKINGS: PRIVATE PROPERTY AND THE FUTURE OF GOVERNMENT REGULATION: MUDDLE OR MUDDLE THROUGH? TAKINGS JURISPRUDENCE MEETS THE ENDANGERED SPECIES ACT", 38 Wm and Mary L. Rev. 825, March, L/N)

Although one may agree with ecologists such as Ehrlich and Raven that the earth stands on the brink of an episode of massive extinction, it may not follow from this grim fact that human beings will suffer as a result. On the contrary, **skeptics such as** science writer Colin **Tudge have challenged biologists to explain why we need more than a tenth of the 10 to 100 million species that grace the earth. Noting that "cultivated systems often out-produce wild systems** by 100-fold or more," Tudge declared that "the argument that humans need the variety of other species is, when you think about it, a theological one." n343 Tudge observed that "the elimination of all but a tiny minority of our fellow creatures does not affect the material well-being of humans one iota." n344 This skeptic challenged ecologists to list more than 10,000 species (other than unthreatened microbes) that are essential to ecosystem productivity or functioning. n345 **"The human species could survive just as well if 99.9% of our fellow creatures went extinct,** provided only that we retained the appropriate 0.1% that we need." n346 [*906] The monumental Global Biodiversity Assessment ("the Assessment") identified two

positions with respect to redundancy of species. "At one extreme is the idea that each species is unique and important, such that its removal or loss will have demonstrable consequences to the functioning of the community or ecosystem." n347 The authors of the Assessment, a panel of eminent ecologists, endorsed this position, saying it is "unlikely that there is much, if any, ecological redundancy in communities over time scales of decades to centuries, the time period over which environmental policy should operate." n348 These eminent ecologists rejected the opposing view, "the notion that species overlap in function to a sufficient degree that removal or loss of a species will be compensated by others, with negligible overall consequences to the community or ecosystem." n349 **Other biologists believe, however, that species are so fabulously redundant in the ecological functions they perform that the life-support systems and processes of the planet and ecological processes in general will function perfectly well with fewer of them,** certainly fewer than the millions and millions we can expect to remain even if every threatened organism becomes extinct. n350 Even the kind of sparse and miserable world depicted in the movie Blade Runner could provide a "sustainable" context for the human economy as long as people forgot their aesthetic and moral commitment to the glory and beauty of the natural world. n351 The Assessment makes this point. "Although any ecosystem contains hundreds to thousands of species interacting among themselves and their physical environment, the emerging consensus is that the system is driven by a small number of . . . biotic variables on whose interactions the balance of species are, in a sense, carried along." n352 [*907] To make up your mind on the question of the functional redundancy of species, consider an endangered species of bird, plant, or insect and ask how the ecosystem would fare in its absence. The fact that the creature is endangered suggests an answer: it is already in limbo as far as ecosystem processes are concerned. What crucial ecological services does the black-capped vireo, for example, serve? Are any of the species threatened with extinction necessary to the provision of any ecosystem service on which humans depend? If so, which ones are they? Ecosystems and the species that compose them have changed, dramatically, continually, and totally in virtually every part of the United States. There is little ecological similarity, for example, between New England today and the land where the Pilgrims died. n353 **In view of the constant reconfiguration of the biota, one may wonder why Americans have not suffered more as a result of ecological catastrophes.** The cast of species in nearly every environment changes constantly-local extinction is commonplace in nature-but the crops still grow. Somehow, it seems, property values keep going up on Martha's Vineyard in spite of the tragic disappearance of the heath hen. **One might argue that the sheer number and variety of creatures available to any ecosystem buffers that system against stress.** Accordingly, we should be concerned if the "library" of creatures ready, willing, and able to colonize ecosystems gets too small. (Advances in genetic engineering may well permit us to write a large number of additions to that "library.") **In the United States as in many other parts of the world, however, the number of species has been increasing dramatically, not decreasing, as a result of human activity. This is because the hordes of exotic species coming into ecosystems in the United States far exceed the number of species that are becoming extinct.** Indeed, introductions may outnumber extinctions by more than ten to one, so that the United States is becoming more and more species-rich all the time largely as a result of human action. n354 [*908] Peter Vitousek and colleagues estimate that over 1000 non-native plants grow in California alone; in Hawaii there are 861; in Florida, 1210. n355 In Florida more than 1000 non-native insects, 23 species of mammals, and about 11 exotic birds have established themselves. n356 Anyone who waters a lawn or hoes a garden knows how many weeds desire to grow there, how many birds and bugs visit the yard, and how many fungi, creepy-crawlies, and other odd life forms show forth when it rains. All belong to nature, from wherever they might hail, but not many homeowners would claim that there are too few of them. Now, not all exotic species provide ecosystem services; indeed, some may be disruptive or have no instrumental value. n357 This also may be true, of course, of native species as well, especially because all exotics are native somewhere. Certain exotic species, however, such as Kentucky blue grass, establish an area's sense of identity and place; others, such as the green crabs showing up around Martha's Vineyard, are nuisances. n358 Consider an analogy [*909] with human migration. Everyone knows that after a generation or two, immigrants to this country are hard to distinguish from everyone else. The vast majority of Americans did not evolve here, as it were, from hominids; most of us "came over" at one time or another. This is true of many of our fellow species as well, and they may fit in here just as well as we do. It is possible to distinguish exotic species from native ones for a period of time, just as we can distinguish immigrants from native-born Americans, but as the centuries roll by, species, like people, fit into the landscape or the society, changing and often enriching it. Shall we have a rule that a species had to come over on the Mayflower, as so many did, to count as "truly" American? Plainly not. When, then, is the cutoff date? Insofar as we are concerned with the absolute numbers of "rivets" holding ecosystems together, extinction seems not to pose a general problem because a far greater number of kinds of mammals, insects, fish, plants, and other creatures thrive on land and in water in America today than in prelapsarian times. n359 The Ecological Society of America has urged managers to maintain biological diversity as a critical component in strengthening ecosystems against disturbance. n360 Yet as Simon Levin observed, "much of the detail about species composition will be irrelevant in terms of influences on ecosystem properties." n361 [*910] He added: "For net primary productivity, as is likely to be the case for any system property, biodiversity matters only up to a point; above a certain level, increasing biodiversity is likely to make little difference." n362 **What about the use of plants and animals in agriculture? There is no scarcity foreseeable. "Of an estimated 80,000 types of plants [we] know to be edible," a U.S. Department of the Interior document says, "only about 150 are extensively cultivated."** n363 About twenty species, not one of which is endangered, provide ninety percent of the food the world takes from plants. n364 Any new food has to take "shelf space" or "market share" from one that is now produced. Corporations also find it difficult to create demand for a new product; for example, people are not inclined to eat paw-paws, even though they are delicious. It is hard enough to get people to eat their broccoli and lima beans. It is harder still to develop consumer demand for new foods. This may be the reason the Kraft Corporation does not prospect in remote places for rare and unusual plants and animals to add to the world's diet. Of the roughly 235,000 flowering plants and 325,000 nonflowering plants (including mosses, lichens, and seaweeds) available, farmers ignore virtually all of them in favor of a very few that are profitable. n365 To be sure, any of the more than 600,000 species of plants could have an application in agriculture, but would they be preferable to the species that are now dominant? Has anyone found any consumer demand for any of these half-million or more plants to replace rice or wheat in the human diet? There are reasons that farmers cultivate rice, wheat, and corn

rather than, say, Furbish's lousewort. There are many kinds of louseworts, so named because these weeds were thought to cause lice in sheep. How many does agriculture really require? [*911] The species on which agriculture relies are domesticated, not naturally occurring; they are developed by artificial not natural selection; they might not be able to survive in the wild. n366 This argument is not intended to deny the religious, aesthetic, cultural, and moral reasons that command us to respect and protect the natural world. These spiritual and ethical values should evoke action, of course, but we should also recognize that they are spiritual and ethical values. We should recognize that ecosystems and all that dwell therein compel our moral respect, our aesthetic appreciation, and our spiritual veneration; we should clearly seek to achieve the goals of the ESA. There is no reason to assume, however, that these goals have anything to do with human well-being or welfare as economists understand that term. These are ethical goals, in other words, not economic ones. Protecting the marsh may be the right thing to do for moral, cultural, and spiritual reasons. We should do it-but someone will have to pay the costs. In the narrow sense of promoting human welfare, protecting nature often represents a net "cost," not a net "benefit." It is largely for moral, not economic, reasons-ethical, not prudential, reasons- that we care about all our fellow creatures. They are valuable as objects of love not as objects of use. What is good for [*912] the marsh may be good in itself even if it is not, in the economic sense, good for mankind. The most valuable things are quite useless.

AT Biodiversity DA -- Link Turn

Dredging solves the environment - erosion, water quality, and habitat restoration

IADC 5 “Dredging: The Facts” IADC, IAPH, PLANC, WODA, CEDA, EADA, WEDA, Marsha Cohen.

International Association of Dredging Companies and International Association of Ports and Harbors.

<http://www.iadc-dredging.com/ul/cms/fck-uploaded/documents/PDF%20Publications/dredging-literature-dredging-the-facts.pdf>

Dredging can be undertaken to benefit the environment in several ways. **Dredged materials are frequently used to create or restore habitats. Recent decades have also seen the increasing use of dredged materials for beach replenishment. These schemes are designed to prevent** – or reduce the likelihood of – **erosion or flooding**. Such beach nourishment or recharge is achieved by placing dredged sand or gravel on eroding beaches. This represents a “soft-engineering” solution, an important alternative to – often more costly – structural solutions such as rock armour or concrete walls. **Another environmental use of dredging has been in initiatives designed to remove contaminated sediments, thus improving water quality and restoring the health of aquatic ecosystems. This** so-called “remediation” or “clean-up” **dredging is used in** waterways, lakes, **ports** and harbours in highly industrialised or urbanised areas. **The removed material may be treated and used afterwards, or disposed of under strict environmental controls.** Under proper conditions a viable alternative to removal is in-situ isolation, i.e. the placement of a covering or a cap of clean material over the contaminated deposit.

Dredging solves water quality and aquatic ecosystems


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Dredging is often used to enhance wildlife habitats

David J. Yozzoa et al 2004 David J. Yozzoa, Pace Wilberb, Robert J. Willc,  Journal of Environmental Management Volume 73, Issue 1, October 2004, Pages 39–52 Beneficial use of dredged material for habitat creation, enhancement, and restoration in New York–New Jersey Harbor

Beneficial **use of dredged material includes** ‘all productive and positive uses of dredged material, which covers broad use categories ranging from **fish and wildlife habitat development**, to human recreation, to industrial/commercial uses’ (USACE, 1986). Historically, the USACE placed dredged material in open waters and wetlands near Federal channels, provided the material would not become a navigation hazard or readily slump back into the channel. In 1973, the USACE initiated **the Dredged Material Research Program (DMRP)**, authorized by the Rivers and Harbors Act (RHA) of 1970. This program **examined of the effects of dredging and dredged material placement on fish and wildlife habitats and developed recommendations for how those habitats could be enhanced or created with dredged material** (Lunz et al., 1978, Landin, 1982 and Landin et al., 1989). Beneficial use projects have been constructed in association with navigation improvement projects within a number of USACE Districts along all the US coastlines and in the Great Lakes. **Representative**

projects include intertidal marsh and mudflat creation, bird and wildlife island establishment, beach nourishment, land reclamation, erosion control, and underwater reef and berm construction.

Dredging solves aquatic habitats

Jones 12

(Brad, "The science — and politics — of dredging", 7-28

<http://www.goldprospectors.org/Communication/ArticlesandInformation/tabid/153/EntryId/537/Dredging-doesn-t-harm-fish-experts-say.aspx>, DOA:)

Suction **dredge mining** does not harm fish and **can actually improve fish habitat**, scientists say. Claudia Wise and Joseph Greene, worked for the U.S. Environmental Protection Agency for more than 30 years. Wise is a retired physical scientist and Greene is a retired research biologist. Both **scientists have done extensive research on the issue and cannot find any evidence to substantiate claims made by environmental activists that suction dredging harms fish or fish habitat**. They say suction dredging can benefit salmon and other species of fish by improving habitat in rivers and streams. The science of dredging "**Any negative effects of suction dredging on fish or fish habitat are insignificant**". The benefits definitely outweigh any of the negative effects in any of the studies I've ever seen," Wise said in recent interview. In almost every study, **the environmental impact of suction dredge mining on fish — including salmon — and fish habitat has been proven to be "less than significant,"** Greene said. **Dredging improves fish habitat by creating pockets in the bottoms of riverbeds and streambeds. These depressions are ideal places for fish,** especially salmon, **to spawn** when there are limited natural areas of loose gravel, called refugia. "It's a pool of water within the river you might say. If it is three feet deep, it's considered refugia, which is a depression in the river bottom that is under the main currents where fish prefer to rest in cooler water, lots of times at the mouth of a tributary," she said. "There are so many benefits to it," said Wise, explaining that the gravels in many rivers and streams have become so compacted over the years that the fish cannot always find a natural place to spawn. Because suction dredgers break up or loosen the gravels and create small pockets in the bottoms of streams, it often creates manmade refugia, where none had previously existed. While opponents of suction dredging argue that fresh dredge tailings (gravels), are not as stable as natural gravel beds, they are better than nothing where natural gravels don't exist, Wise said. "However, the salmon are smart enough to recognize the difference between natural and manmade refugia," Greene said. If there is no suitable place to spawn, the fish will spawn anyway. "The eggs will just be floating down river and be eaten by any predator that would eat them. They have to get through the gravel to build that nest," he said. After dredge tailings have settled for a year, they become more stable and more attractive to salmon. "By the next year, you've got great spawning gravel," Wise said. So, adding more refugia means salmon have more places to spawn which helps to increase salmon populations. Even one redd (nest of salmon eggs) can contain thousands of salmon eggs, she said.

Private sector finds solution for dredged materials

Burson, 1/27/14

(Patrick Burnson is executive editor for Logistics Management and Supply Chain Management Review magazines and web sites. Patrick is a widely-published writer and editor who has spent most of his career covering international trade, global logistics, and supply chain management)

http://www.logisticsmgmt.com/view/private_sector_partnerships_sought_for_port_dredging_options/sustainability

Seaports across the nation are confronting one similar challenge: how to develop a sustainable strategy for distributing dredged materials. The Port of Baltimore believes partnering with private-sector third parties is the answer. Continuing their commitment to attract private-sector expertise to address unique transportation challenges, the Maryland Department of Transportation's Maryland Port Administration (MPA) **recently issued a Request for Information (RFI) seeking ideas and best practices for converting material dredged from Baltimore Harbor shipping channels into an environmentally-safe aggregate used in the construction / building industries.** MPA is exploring the potential of developing a public-private partnership (P3) to take material already placed at the Cox Creek Dredged Material Containment Facility and convert it into a light-weight aggregate used in masonry blocks, concrete, hot-mix asphalt and geotechnical fill. **"Dredging is the lifeline of the Port of Baltimore," says MPA Executive Director James J. White. "Without properly maintained shipping channels, the huge ships of today and**

supersized ones of tomorrow could not safely travel to and from the port. With a 50-foot-deep shipping channel, Baltimore is one of only two ports on the U.S. East Coast currently able to handle large Super Post-Panamax ships that will use the newly enlarged Panama Canal when construction is completed by 2015. To maintain these shipping channels, approximately 1.5 million cubic yards of material must be dredged from the Baltimore Harbor annually. Dredged material from the Harbor is then placed at containment facilities, including Cox Creek and Masonville. While capacity remains at these sites, **the MPA has been investigating best practices to increase dredged material placement capacity while researching possible beneficial reuse ideas. The MPA successfully completed a demonstration project in January 2012 by converting dredged material into a light-weight aggregate.** The RFI will help the State determine if there is a cost effective and competitive marketplace for the environmentally-safe aggregate. Now that the RFI responses have been received, MPA will analyze the industry feedback to determine the potential for a P3 and develop next steps for a possible solicitation process. MPA is targeting late winter 2014 for a decision regarding next steps for a potential solicitation process.

AT Biodiversity DA -- No Link/Internal Link

Coral reefs recover from dredging and there are multiple alt causes to oceanic sedimentation

Allsop et al 9

(Michelle, research consultant based at the Greenpeace Research Laboratories, located within the School of Biosciences at the University of Exeter, UK, Phd in Biomedicine from University of Exeter, Paul Johnston, principal scientist at the Greenpeace Research Laboratories and head of the Science Unit for Greenpeace International, Phd from University of London, David Santillo, senior scientist with the Greenpeace Research Laboratories, Phd from University of London, *State of the World's Oceans*, pg. 20)

Sedimentation: **Developments in coastal areas can increase the flow of sediments onto coral reefs** (Australian Institute of Marine Science 2004). When sediment is stirred up in the water, light penetration is reduced and this may affect photosynthesis on coral reefs. Sediments may also smother corals. Such effects from increased sedimentation can result in coral mortality. For example, at K0-Phuket, Thailand, **dredging for a deep-water port over an 8-month period caused a significant decrease in coral cover** on reefs adjacent to the activity. **A year after the dredging, the corals were showing rapid signs of recovery** (Brown 1997). **Sediment release** into the oceans **is increasing due to** the development of coastal areas for expanding population and **increases in agriculture** (Australian Institute of Marine Science 2004). **Aquaculture operation** can be a **considerable source of** both **sediments** and nutrients **into coastal waters** (Edinger et al. 1998). Clear felling of tropical forests in coastal zones can also be a major contributor to increased sedimentation (Australian Institute of Marine Science 2004).

Their evidence assumes old techniques -- newest port dredging strategies have no negative environmental impacts

EPA 7

U.S. Environmental Protection Agency, Washington, DC "The Role of the Federal Standard in the Beneficial Use of Dredged Material from U.S. Army Corps of Engineers New and Maintenance Navigation Projects" October 2007

Since the passage of the landmark Water Resources Development Act (**WRDA**) of 1986, **there has been a major evolution of law and policy concerning the beneficial use of dredged material. Environmental restoration is now a priority mission of USACE**, along with the traditional mission areas of flood damage reduction and inland and coastal navigation. New laws have established the authority of USACE to use dredged material for environmentally beneficial purposes, and programs have been initiated to implement these laws. The remaining challenges to increasing the number of beneficial use projects include educating those with an interest in these new opportunities and creating partnerships to develop and implement them. **Beneficial uses of dredged material involve the placement or use of dredged material for some productive purpose. Examples of beneficial uses of dredged material include habitat development** (e.g., wetland restoration or creation, fishery enhancement); **development of parks and recreational facilities** (e.g., walking and bicycle trails, wildlife viewing areas); **agricultural, forestry, and horticultural uses; strip-mine reclamation/solid waste management** (e.g., fill for strip mines, landfill capping); shoreline construction (e.g., levee and dike construction); construction/industrial development (e.g., bank stabilization, brownfields reclamation); **and beach nourishment** (e.g., restoration of eroding beaches).

AT Biodiversity DA -- UQ Overwhelms Link

UQ overwhelms the link -- massive marine biodiversity loss is inevitable -- nothing we can do to stop it

Suurkula 4

World-wide cooperation required to prevent global crisis; Part one— the problem, Physicians and Scientists for Responsible Application of Science and Technology, February 6, 2004

<http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions>

A new global study concludes that 90 percent of all large fishes have disappeared from the world's oceans in the past half century, the devastating result of industrial fishing. **The study**, which took 10 years to complete and was published in the international journal Nature, **paints a grim picture of the Earth's current populations of such species as sharks, swordfish, tuna and marlin. The loss of predatory fishes is likely to cause multiple complex imbalances in marine ecology.** Another cause for extensive fish extinction is the destruction of coral reefs. This is caused by a combination of causes, including warming of oceans, damage from fishing tools and a harmful infection of coral organisms promoted by ocean pollution. **It will take hundreds of thousands of years to restore what is now being destroyed in a few decades. According to the most comprehensive study done so far in this field, over a million species will be lost in the coming 50 years.** The most important cause was found to be climate change.

AT Biodiversity DA -- Mudflats Turn

Mudflat habitats are threatened now - changes in sedimentation

Butler & Weiss 9

“Salt Marshes: A Natural and Unnatural History” By Carol Butler, and Judith Weis Rutgers University Press, Jul 16, 2009

Mudflats, rather than salt marshes, are considered the most biologically productive of the West Coast estuarine habitats because they are teeming with invertebrates of all kinds. Marine worms, crustaceans, and mollusks support the hundreds of thousands of shorebirds that inhabit the estuary. When Eastern cordgrass dominates marshes above the mudflats, it displaces native cordgrass and other native plants, creating a single ecological zone that eliminates the many transitional areas native species need. It reduces the organisms and modifies benthic communities. It reduces the species richness of benthic organisms modifies benthic communities. It is ironic that while *Spartina alterniflora* (**cordgrass**, see fig. 2.1 in chapter 2) is valued in East Coast marshes, in West Coast Estuaries it **is** considered **a noxious, invasive species because it** converts valued mudflats areas into it is a "weed" that **is smothering San Francisco Bay's mudflats It has** displaced native flora, **changed sedimentation**, decreased invertebrate algal populations, eliminated foraging sites used by 'into Willapa Bay in the late 1800s or early 1900s as packing material for oyster shipments from the East Coast. From the middle of the twentieth century the plant spread rapidly throughout Willapa Bay. In the 1970s, the Army Corps of Engineers deliberately introduced it to stabilize flood-control levees on Alameda Island in San Francisco Bay because it grows much faster than the native cordgrass (*S. foliosa*). Unfortunately, *S. alterniflora* both outcompetes hybridizes with *S. foliosa*, the hybrid is particularly invasive, choking off small creeks in the marshes that are used by the endangered California clapper rails and covering mudflats that provide food for the rails other shorebirds. By 2005, about 10 percent of the acres of tidal flats in the San Francisco Bay estuary had been invaded by the hybrid. In Washington State, it was accidentally introduced about one hundred years ago, but for some unknown reason it has not hybridized there. Loss of mudflat habitat harms marine species such as the juvenile chum salmon, Dungeness crab, and English sole that rely on these habitats as food sources.

Dredging → mudflat protection -- solves contaminated sediment and water quality

IADC 5 “Dredging: The Facts” IADC, IAPH, PLANC, WODA, CEDA, EADA, WEDA, Marsha Cohen.

International Association of Dredging Companies and International Association of Ports and Harbors.

<http://www.iadc-dredging.com/ul/cms/fck-uploaded/documents/PDF%20Publications/dredging-literature-dredging-the-facts.pdf>

Dredged material is increasingly regarded as a resource rather than as a waste. More than 90% of sediments from navigation dredging comprise unpolluted, natural, undisturbed sediment, which is considered acceptable for a wide range of uses. The DMAF recognizes this and requires that, as a first step in examining dredged material management options, possible beneficial uses of dredged material is considered. Beneficial use may be defined as “any use which does not regard the material as a waste”. **A great variety of options are available, and the main types can be coastal protection,** e.g. beach nourishment, onshore/offshore feeding, managed retreat; agriculture, horticulture, forestry; **habitat development or enhancement, e.g.** aquatic habitats, bird habitats, **mudflats**, wetlands; amenity development or enhancement, e.g. landscaping; raising low-lying land; land reclamation, e.g. for industrial development, housing, infrastructure; production of construction material, e.g. bricks, clay, aggregates; construction works, e.g. foundation fill, dikes. Operational feasibility, that is, the availability of suitable material in the required amount at a particular time, is a crucial aspect of many beneficial uses.

Mudflats are key to marine ecosystem health -- they're a pollution buffer and the key geographic link between ecosystems -- crucial for internationally important migratory species

Northern Ireland Dept. of the Environment 3

("Northern Ireland Habitat Action Plan Mudflats Final Draft – April 2003",
http://www.doeni.gov.uk/nica/mudflats_web_version_april_03-3.pdf)

1.1.1 **Mudflats are intertidal habitats** created by sedimentary deposition in low energy coastal environments, particularly in estuaries and other sheltered areas such as sea loughs. The substrate is formed mainly from silts and clays and has a high organic content. In higher energy environments, such as the mouths of estuaries, the proportion of sand in the substrate increases. **Physical processes link mudflats to many other coastal habitats** such as soft cliffs and saltmarshes. They often form the transitional habitat between subtidal channels and vegetated saltmarshes. In larger estuaries they can reach several kilometres in width and are commonly the most extensive part of the estuarine intertidal area. 1.1.2 **Mudflats play an important role in dissipating wave energy, thus reducing the risk of erosion of saltmarshes, damaging coastal defences and flooding low-lying land.**

The surface of mudflats plays an important role in intertidal nutrient chemistry. In polluted environments, organic sediments may sequester contaminants and may contain high concentrations of heavy metals. 1.1.3 **Mudflats are** typified and **characterised by high biological**

productivity (based on detritus) **and they support an abundance of organisms,** but have low macrofaunal diversity with few rare species. The mudflat biota reflects the prevailing physical conditions. When salinity is low, large numbers of oligochaetes occur. A wider diversity of polychaete worms are found in areas with increased proportions of sand. Coarser substrates provide habitat for seagrasses *Zostera* spp. and mussel beds in particularly stony areas. Occasionally these stony areas can provide attachment for stands of fucoid macroalgae such as *Fucus spiralis* and *F. vesiculosus*. 1.1.4 Mudflats may appear to be devoid of vegetation, but mats of benthic microalgae are common. These communities produce mucopolysaccharide mucilage that binds the sediment together. In nutrient rich environments, mats of *Enteromorpha* spp. or *Ulva* spp. may be present particularly where salinity is reduced.

1.1.5 **Mudflats are highly productive areas which,** together with other intertidal habitats, **are of great importance to large numbers of birds and fish. They provide vital feeding and resting areas for internationally important populations of migratory** overwintering and breeding **waterfowl** and Annex I species, specially protected under the EC Birds Directive.

AT Biodiversity DA -- Mudflats Turn Ext

Port dredging key to mudflat habitat survival - solves contaminated sediments

André 8

(Dene, "Dredging - Best Practice of the Day", Monday, 23 June 2008

http://greenercities.co.nz/index2.php?option=com_content&do_pdf=1&id=59 (A set of guidelines on dredging best practice that provides an overview of dredging and its impacts plus a recommended set of conditions to be applied to any dredging project. Section One – Overview)

In considering the environmental effects of maintenance dredging and disposal, the potential benefits of these operations should not be overlooked. These include the removal of contaminated sediments and their relocation to safe, contained areas, and the possible improvement of water quality made by the restoration of water depth and flow. There can be significant beneficial improvements from the use of clean maintenance dredgings to enhance mudflat and saltmarsh habitats, and to mitigate losses of intertidal land through sea level rise and capital dredging operations (Bowles, MAFF personal communication 1999).

AT Competitiveness K

Competitiveness discourse key to mobilizing resources and political coalitions.

Ron **MARTIN** Economic Geography @ Cambridge '6 in *Economic Geography: Past Present and Future* eds. Sharmistha Bagchi-Sen and Helen Smith p.170-171

Similarly, **the study of regional competitiveness also opens up opportunities for a greater engagement by geographers with public policy research and debate**, of the sort argued for by some commentators (such as Markusen 1999; Martin 2001). As noted above, **regional competitiveness policy has tended to rush ahead of theoretical understanding and the evidence base**. Economic geographers can make valuable contributions on both fronts. There is a pressing need to constructively interrogate the meaning and nature of 'regional competitiveness', both to provide a firmer base for understanding regional differences in economic success and for informing policy discourse. A geographical-theoretic perspective, for example, would not only highlight the importance that place makes to economic organisation and performance, and thus how local context matters even in an increasingly global world, but also - to pick up the argument made by Porter - how the processes influencing competitive advantage operate and interact at various spatial scales. It would also highlight the need to include intraregional (or intra-urban) socio-spatial distributional issues into any definition and analysis of regional or city competitiveness. **Economic geographers are likewise well placed to engage directly with policy discourse, not only because competitiveness policy is itself increasingly regional and city-based, but because such policies are often predicated on an explicit comparative argument**, involving direct comparisons between individual regions and cities. Geographical research can help reveal the scope for and limits to this 'benchmarking' and use of 'exemplar' places that seems now to be an essential part of competitiveness policy at national, regional and city levels. Certainly, **if done properly, regional benchmarking can help identify a region's or city's competitive strengths and weaknesses, and hence form the basis of policy formulation and priorities. It can help mobilise and articulate the interests of the key actors and groups in the regional economy**: the local business community, workers, and public and private institutions. And **it can help** a region's business, political and social communities **forge a common sense of purpose in terms of ambitions for the future, and in presenting the region to the global market place, even in lobbying efforts to influence government policies and the allocation of resources**. Regional benchmarking can facilitate the development and ongoing review of a vision defining the region's role in a world economy characterised by a steadily increasing and ever-shifting division of labour. But such benchmarking is fraught with dangers and limitations. What precisely does it mean to compare one city, one region, with another? While it is certainly instructive to examine and learn from successful regions, policymakers should be wary about treating them as exemplars that can be easily replicated or imitated in their own region. Policies rarely travel well: successful strategies developed in one region need not transplant easily into other regions (especially in other countries). Indeed, given that many of the sources of regional competitive advantage are locally based and embedded, policies necessarily have to respond to, and take account of, regionally-specific circumstances. Together with the problems in defining, measuring and explaining regional competitive advantage discussed in this chapter, it follows that there is unlikely to be any 'one size fits all' strategy for enhancing regional competitiveness. Different regions will face different problems, different types of competition, and require somewhat different policy mixes and emphases. Economists prefer universal tendencies and transferable policies: economic geographers have a comparative advantage in recognising and demonstrating the difference that place makes. Whether we like it or not, whether we agree with it or not, competition is an integral feature of economic, political, social and cultural life. It is not simply a neoliberal invention. Economic geographers have an important role to play in elucidating the nature of and limits to the idea of 'regional competitiveness', as a way of thinking about the economic landscape, as an empirical process, and as a form of policy thinking.